REHABILITATION RECORD

JULY 31st AUGUST 1979

Guide to all other needs of the handicapped person
in the need for transportation. What good is a
job if he cannot get to it?
See pages 3-4

Disabled People on the Move

In the introduction to our booklet on "Travel Barriers," I pointed out: "There must be within our society a continuing universal awareness that transportation for the handicapped is good business, good government, and good human decency."

That was early in my term as Secretary of Transportation. I feel even more strongly on the subject today.

Oliver Wendell Holmes said at 90: "The work is never done while the power to work remains. For to live is to function—that is all there is to living." Too many physically disadvantaged Americans who have the power to work lack the opportunity to function fully because of travel barriers. And those barriers lay across the path of others who would reach educational, medical, recreational, religious, rehabilitation, or shopping centers.

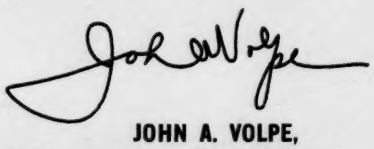
Much more needs to be done to overcome America's late start in tackling this problem. But we're making progress in felling the barriers. Now every public transportation project that shows consideration for the peculiar needs of the handicapped and the elderly in its plans or design gets preferential treatment in our capital grant and technical studies programs. We're experimenting with vehicles specially equipped to accommodate wheelchairs. Others make the going easier for people to whom that first high step onto a bus presents an almost insurmountable challenge. City curbs are being cut to ease the transition from sidewalk to street.

We've encouraged communities to try demand-responsive systems with vehicles of various design that will provide more convenient and comfortable service at reasonable costs. We've worked with industry to develop such innovative concepts as the Personal Rapid Transit systems being demonstrated this year. With their wide, platform-level doors and their smooth, automated movement, these cars overcome many of the obstacles to travel by the physically disadvantaged. We hope they may prove feasible for use in urban hubs.

This is but a sampling of a wide range of projects to develop hardware and software to make the handicapped and the elderly at ease in the normal flow of daily traffic. The Department's overall objective—realization of a well-balanced transportation system for the Nation—will be achieved only when adequate, safe public transportation is available to all those who need it, regardless of their means or their special requirements.

One of the big jobs is arousing community concern to a point of action. Informative studies, new equipment, new systems can't help if they're sitting on a shelf. The readers of "Rehabilitation Record" are particularly well positioned to observe the local needs of the handicapped and to make them known to responsible transportation authorities. We will certainly help with any feasible plan to the limitation of our funds. And then I hope you will let us know what we're doing right, what we're doing wrong—and what still needs to be done.

President Nixon has encouraged and strongly supported efforts to bring the handicapped and the elderly into the mainstream of American life. The program in the Department of Transportation has my personal interest and concern. With your help, we're going to make it work.



JOHN A. VOLPE,
Secretary, Department of Transportation

TRANSPORTATION OVERVIEW

WILLIAM BEAN, PH. D.

Those who have experienced physical disability or those professionals in rehabilitation who work with the physically disabled soon learn that mobility looms as a major problem. These problems find expression in both the mini trip—perhaps from one room to another in the home or from one building to another—or in point to point travel—from one point in the city to another or from one city to another. Unlike the wag who has characterized walking as a vestigial activity now limited to walking from the kitchen to the garage, the physically disabled person may be limited even in that elementary trip.

The Short Trip

Movement within a building or from a building is often impeded by one or more architectural barriers—narrow doorways or steps. Some idea of the magnitude of this problem is seen in data from the 1966 Social Security Survey of the Disabled (expanded to account for population growth since then) which indicates that currently a total of 1.6 million people cannot walk or cannot go outside unassisted. A single step such as a curb can often be a barrier to those otherwise able to move on a level surface, such as individuals in wheelchairs.

Architectural barriers of this kind can be overcome by modifications of the structure, such as cutting curbs level to the street or building ramps or by the use of special equipment, such as elevators or special stair-climbing apparatus.

The Wheelchair

The possibility of a stair-climbing wheelchair has long interested those who observe the barriers facing the severely disabled. In July 1960, the President's Committee on Employment of the Handicapped, in conjunction with the National Inventors Council of the Department of Commerce posted an award of $5,000 for the best designed stair-climbing wheelchair. Entries were slow and the contest was extended to January 1965, when the prize finally was awarded to two Canadians, Neville E. Hale and Kenneth Gardner for their design.

The winning design has never gone into production, perhaps because it does not meet the American

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need for flexibility. Pictures and descriptions of the design suggest that it was a modified crawler-type tractor of such a length as to restrict its turning radius. It was also quite heavy.

Personal vehicles for the severely disabled seem to get a better reception in Europe, which is not as familiar with and dependent on the automobile. One such design, from Sweden, is the Permobile. Designed by Dr. Per Udden of the Foundation for Technical Aids for the Handicapped, Timra, Sweden, the Permobile was introduced in the U.S. in 1967, including a brief announcement in the March–April 1967 issue of the *Rehabilitation Record* and in *Performance,* a publication of the President's Committee on Employment of the Handicapped. Described somewhat erroneously as a stair climber (it does climb curbs), the American distributors of the Permobile reported over 400 inquiries stimulated by the above articles.

Sometime after the close of the contest to design a stair-climbing wheelchair, a Pennsylvania inventor, Harold Kemm, received a patent on a unique design that worked not only climbing stairs, but was hand powered, foldable, lightweight, and short enough to be used in close quarters like a classroom or office. Looking much like the familiar steel tubing and canvas wheelchair, the Kemm wheelchair uses an imaginative arrangement of offset rear axles rather than crawler treads.

The research arm of SRS has now funded additional research on the Kemm design at the nonprofit Franklin Institute Research Laboratories in Philadelphia. In addition to examining some of the stresses and design characteristics of the Kemm design, the Franklin Institute is also testing the possibility of compressed gas to assist the manual power of the chair's occupant in shifting from the level surface mode to the climbing mode for quickly going up and down curbs in crossing streets.

The Automobile

Ours is a country on wheels.

A personal automobile is easily the preferred mode of transportation for most of the people in the U.S., and this includes the disabled. Perhaps it is accurate to say *especially* the disabled.

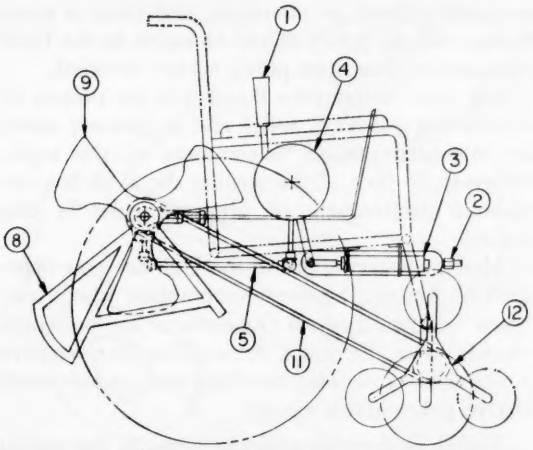
For the disabled who can drive, the automobile can offer a personal freedom that is highly satisfying. It can also be the means of earning a living—getting to a place of employment is prerequisite for employment. Finally, the personal automobile may be the only practical alternative for transportation by the severely disabled person who cannot use the now available mass transit systems.

Judge Sherman Finesilver of the University of Denver Law School has been one of the country's leading advocates of the disabled person's *right* to drive. One of the earliest interests of Judge Finesilver was that of the legal rights of the deaf, and how the deaf person is frequently unknowingly victimized in legal proceedings because of communication problems.

Concurrently, Judge Finesilver looked into the problems faced by deaf persons in becoming licensed to drive because of the stereotypic notion that acute hearing was necessary to be a safe driver. What has been proven, instead, is that *alertness* is a vital ingredient, not hearing. In fact, the driver with normal hearing has trouble locating the source of the siren he may hear, confounded as the sound is by road noise, the car radio, and, now, air conditioning which to be effective requires that the windows remain closed.

More recently, Judge Finesilver has focused on the problem faced by the physically disabled driver, typically the post-polio and the spinal cord injured. A symposium (Denver, November 1969) under the leadership of Judge Finesilver, focused on licensing, retraining (following onset of disability), accident involvement, driver weaknesses and shortcomings, and insurance considerations. Among the findings of the experts and studies reported at the Denver symposium were:[1]

- Physically disabled drivers are among the most safety conscious and have as good or better safety records as all drivers.
- Insurance companies report positive attitudes toward disabled drivers and no discriminatory treatment, although the disabled themselves report instances of difficulty in obtaining insurance at standard rates.
- There is a marked need for driver training directed to the needs of the disabled.
- There is a need for uniform testing and evaluation of special equipment (hand controls, etc.) needed by disabled drivers.
- Special parking privileges are a must if the disabled driver is to make full use of the independence the automobile can give him.
- The disabled driver needs some means of summoning assistance in the event of an auto breakdown.



Stair-climbing wheelchair: (1) Control arm, (2) gas cylinder, (3) actuator, (4) ratchet, (5) drive system, (8) wheel lift, (9) rear star wheel, (11) chain, and (12) front star wheel. (Kemm design being developed at Franklin Institute)

Activities are underway at scattered locations addressed to some of the problems identified at the Denver symposium. This issue of the *Rehabilitation Record,* for example, discusses the driver training at one comprehensive rehabilitation center. Similar classes are available at other centers, and occasionally at private driver training schools.

At least one State, Connecticut, established a driver training program for disabled veterans shortly following World War II that is available to other disabled drivers, though veterans get first preference.

The Los Angeles Board of Education, under partial sponsorship of SRS, conducted a study directed to the special needs in teaching disabled high school students to drive.

The Los Angeles study reported that (1) as in driver education for all students, knowledge of safe driving requirements and attitudes is critical to success; (2) the rate of success among the disabled student group (95 of 182 or 52.1 percent) more than justifies any added expense and effort to provide driver training to this group; and (3) the rate of success as determined by qualifying for licensing was highest in those classified as "orthopedic," (57 percent), but a significant number of persons with cerebral palsy were also successful (44 percent). The rate of success of a third category, "delicate"—which referred to other conditions that affected overall health—was 48 percent.

The project observed that "the handicapped student is very highly motivated, and often, because of this motivation, will exceed his own expectations." This motivation is revealed, in part, by one unusual statistic: 3 of the 182 disabled students in the project passed their California driving test with a perfect score, a feat that is achieved by only 1 of 10,000 applicants in general.

Another study in California, this one at the University of California at Berkeley, under the direction of Professor Don Cunningham, has been directed to wedding the severely disabled person's need for a wheelchair with the American's need for an automobile. Originally directed to evaluating the possibility of designing a personal vehicle that would be convenient in a school or work situation, and yet safe at highway speeds, the Berkeley group quickly determined that such a design, while it could possibly be achieved, was unsatisfactory for several reasons, particularly bulk and cost.

Working from that point, the Berkeley project staff decided to look into the possibility of developing a wheelchair that would meet indoor requirements and yet be compatible with a standard automobile so that the individual could drive while remaining seated in his own wheelchair.[2] A standard automobile was chosen rather than some other highway vehicle because of the cost factor; further, the design was directed to minimum modification of the vehicle so as to retain the auto's resale value.

The Berkeley project developed two operating designs, both featuring wheelchairs that look and operate much like the familiar folding chair and yet can squat for entry into an automobile. With both, lifts complete the process of getting the passenger and his chair into the automobile, from which the front seat has been removed. The various squatting chairs and lifts are named after their designers, each a Ph. D. candidate at the time of the study, and include the Young adjustable height wheelchair (Ronald Young), the Anderson wheelchair and lift system (David Anderson), and two models of the Akgerman lift (Nuri Akgerman). The Anderson wheelchair design has the additional capacity of climbing and descending a twelve inch curb.

Public Transportation

The disabled face problems in using public transportation both between cities and within cities. Like a good number of other people, the disabled frequently look to the airlines for the same reasons

Designer David Anderson in his prototype wheelchair in automobile driving position in 1965 Ford two door sedan.

as others—speed and comfort. By and large, the airlines are favorably disposed to the handicapped, and they provide assistance in getting on an off airplanes. There are a few exceptions among airlines or in some cities. On occasion, disabled travelers have reached a point on their itinerary requiring a change of planes, and then they have been denied assistance in making the transfer.

Jetways now in use in most major cities, however, have eased some of the problems by removing the need to carry the disabled person up the steps of the airplane.

The current policy governing air travel by the disabled is one developed by the Air Traffic Conference of America, a private group of domestic scheduled air carriers, though policy such as that on handicapped travelers is generally adhered to by members of the Conference.

The ATC rules are dated and do not reflect the realities of jet travel and recent developments in rehabilitation that make it possible for most disabled to travel without an attendant, and there is some feeling that the policy should be issued by the Civil Aeronautics Board, the public agency involved.

The Civil Aeronautics Board is in the process of considering the ATC policy and in January asked for interested persons to comment on this topic. However, to date of this writing the CAB has not finished development of proposed rules in this regard.

Most passenger trains in the U.S. are now operated by Amtrak, a private corporation which contracts with the Federal Government for passenger service. From the outset, Amtrak has been sensitive to the needs of disabled travelers, and has just issued overall policy in this regard:

It will be Amtrak policy to consider the special needs of aged and handicapped persons in our passenger service policies and the design of passenger cars, stations, and terminals.

The policy goes on to cite service needs of the aged and disabled passenger and includes assistance with such things as handling baggage, getting on and off the trains, seating, feeding, and use of restrooms.

Equipment design for the future will include such features as wide aisles and vestibules and rest rooms with handrails and wide doors. Attention will be made in the renovation of present equipment to similar features to assure accessibility. All new facilities will conform to the standards of the United States of America Standards Institute; remodeling of present facilities will be done to these standards as much as feasible. Included will be a mobile passenger lift or ramp for getting on the train when platforms at the station are not raised.

Amtrak officials are now moving to implement their broad policy. As part of the implementing procedure, Amtrak has expressed interest in forming a Consumer Service Advisory Committee.

Local Transit

The present public transportation systems in cities throughout the country are inadequate to meet the needs of persons with marked mobility limitations. Abt Associates of Cambridge, Massachusetts, in a study done for the Department of Transportation, found such problems in the use of public transportation as barriers in getting on and off vehicles; adapting to sudden movements, such as a lurching bus or rough pavement; crowds; time pressures; and

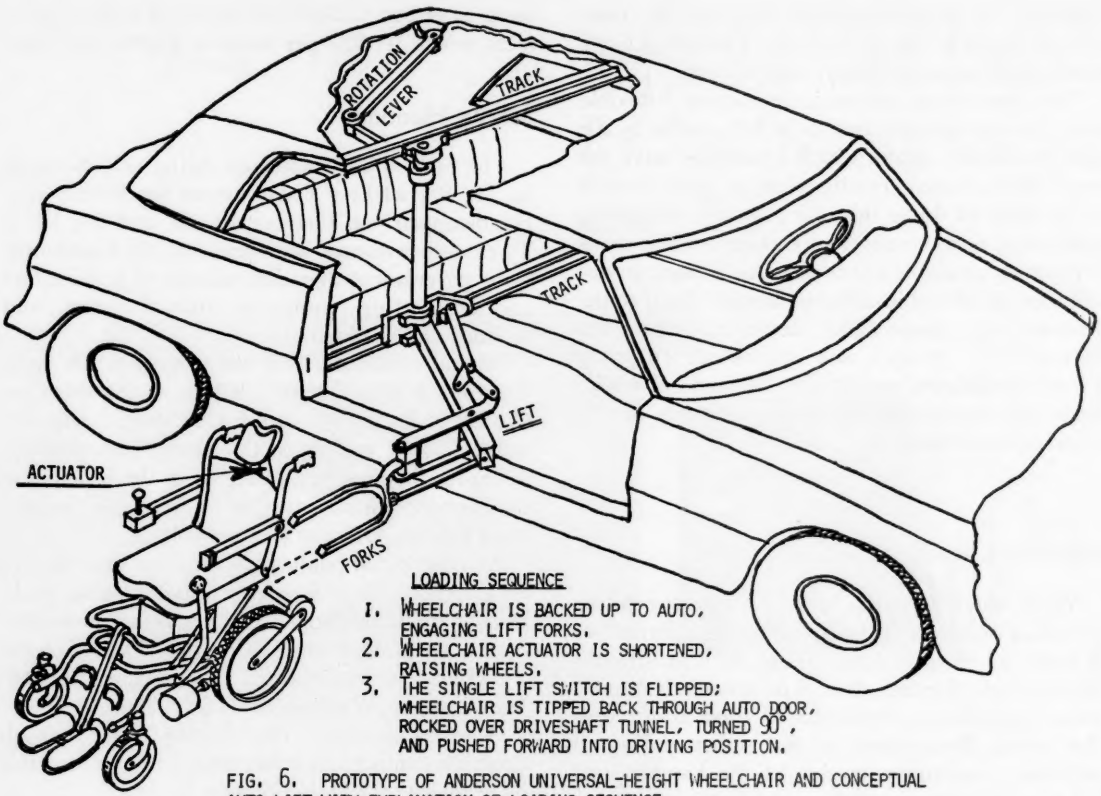

ROTATION LEVER
TRACK
TRACK
LIFT
ACTUATOR
FORKS
LOADING SEQUENCE
1. WHEELCHAIR IS BACKED UP TO AUTO, ENGAGING LIFT FORKS.
2. WHEELCHAIR ACTUATOR IS SHORTENED, RAISING WHEELS.
3. THE SINGLE LIFT SWITCH IS FLIPPED; WHEELCHAIR IS TIPPED BACK THROUGH AUTO DOOR, ROCKED OVER DRIVESHAFT TUNNEL, TURNED 90°, AND PUSHED FORWARD INTO DRIVING POSITION.

FIG. 6. PROTOTYPE OF ANDERSON UNIVERSAL-HEIGHT WHEELCHAIR AND CONCEPTUAL AUTO LIFT WITH EXPLANATION OF LOADING SEQUENCE.

long walking distances. Anyone of these problems may be enough to block travel; in combination, they can be insurmountable.

One approach to making bus systems accessible to the handicapped would be to redesign the buses, incorporating some necessary design features. General Motors has developed what it has named the RTX (Rapid Transit Experimental). Among other features, the RTX could squat to 9 inches from the ground to assist in accessibility.

The Metro system, now under construction in Washington, D.C. and environs, is also to be made fully usable by the handicapped. With funding and technical consultation from RSA, the American Institute of Architects has examined the access needs of the Metro System. Edward H. Noakes, AIA member, has produced a design concept for an inclined elevator that would fit into a standard escalator slot, and provide convenient access for not only the disabled but also the aged, shoppers with bundles, mothers with small children, and others who cannot use the escalators which will be standard equipment for Metro.

Substantial federal funds are going into Metro, and an amendment (P.L. 91–205) to the federal architectural barriers law gives the weight of law to assure accessibility and usability of Metro. Recently, however, several local groups in Washington—the Washington Urban League, Inc., The Paralyzed Veterans, and the National Paraplegic Foundation—feeling that Metro was delaying in the actual steps to make Metro usable, have filed suit in federal court to force withholding of further federal funds until positive assurance and evidence is available to show compliance with P.L. 91–205.

Alternate Modes of Public Transport

Systems that combine features of both regularly scheduled mass transit and individual services, such as that described in this issue of the *Record,* are

underway in several locations. One of the most comprehensive is that of the Valley Council of Governments, Naugatuck Valley, Connecticut.

The Connecticut project is developing a flexible transit system designed first to be fully usable by the aged and handicapped, which would also serve the nondisabled, there currently being no public transit in the area. In doing this, the project is designing, fabricating, and experimentally testing modifications to presently available transit vehicles. Transit service will then be offered in different modes—fixed route, demand (e.g., phone calls), dedicated (whole bus reserved for a group), and hitch-a-ride (flagging a bus). Evaluation would then be made of which mode and equipment best meets the needs of different types of riders.

Legislative Items

While there is much known about the transportation problems of the disabled, this information is mostly of the anecdotal variety, such as is found in this article. Further, there is no systematic, broad-based approach to resolution of these transportation needs. Recognition of this status and equal problems concerning housing of the handicapped led the Committee on Education and Labor of the House of Representatives to include a proposal to establish a National Commission on Transportation and Housing for the Handicapped as an amendment to the Act developed by the Committee.

The package of amendments, H.R. 8395, was passed by the House of Representatives, 327–0, on March 20, 1972. At the time of writing this article, Senate action on vocational rehabilitation legislation had not been completed so it is not known if the House proposal will be retained.

Transportation costs of the handicapped, especially cost of individuals who must rely on taxicabs and personal services, have long attracted Congressional interest. Most frequently this interest has been in the form of bills to allow some income tax deduction for transportation expenses. Several such bills are currently before the House of Representatives, including H.R. 422, introduced by Wilbur Mills, Chairman of the Ways and Means Committee.

Another approach is that of a recent bill introduced in the Senate, S. 3495, by Senator Robert Dole. Senator Dole's bill would provide a quarterly cash assistance payment to pay part of the extraordinary transportation costs a handicapped person may incur in getting to and from work. Maximum payment would be $20 per week or $1,000 per year.

Senate Hearings

The Special Committee on Aging held hearings on "A Barrier-Free Environment for Elderly and Handicapped" on October 18, 19, and 20, 1971. Twenty-six witnesses were heard by the Committee from government agencies, schools of architecture and engineering, equipment manufacturers, and disabled and aged persons.

Several of the topics of the present article were discussed at much greater length at the hearings. Copies of its reports, printed in three parts, are available free, as long as the supply lasts, through the Special Committee on Aging or the Rehabilitation Services Administration or from the Government Printing Office at $.30 per volume.

Another useful publication for those interested in developments in transportation and housing problems of the handicapped is the monthly newsletter of the Committee on Barrier Free Design of the President's Committee on Employment of the Handicapped, Washington, D.C. 20210.

A listing of sources cited in this article and addresses to contact for further information is available on request to the *Rehabilitation Record*.

The acknowledgment of accessible transportation as one of the most important aspects in returning many handicapped persons to productive lives should place a high priority on this area. For example, in a study conducted as part of New Jersey's project for Comprehensive Statewide Planning for Vocational Rehabilitation, it was determined that half of the disabled people rehabilitated by the State vocational rehabilitation agency, who, on followup were not working, said they could work if they could solve their transportation problems. Transportation problems of the handicapped are far from being solved, but stirrings in federal, State, and local governments and in private organizations attest to recognition of the extent and impact of the problem. With this awareness progress will come.

Notes

(1) A Research and Demonstration BRIEF has been prepared on the Finesilver symposium, and it is available from the Research Utilization Branch, Office of Research, Demonstration, and Training, SRS.

(2) Some disabled people can manage to transfer into an automobile unassisted, but they have problems getting the wheelchair into the car. One solution to such a problem was discussed in the November-December 1971 issue of the *Rehabilitation Record*.

Barrier-free Rapid Transit For San Francisco Bay Area

Harold L. Willson

Before many months, the Bay Area Rapid Transit (BART) District will commence revenue service between Oakland and Fremont. By year's end, the system will be operating to Richmond and Concord. By mid-1973, BART will begin service through its San Francisco Bay tube and into San Francisco. Its service area will extend into three California counties with 75 miles of track and 34 stations accessible to individuals in wheelchairs for safe boarding and leaving of trains. BART facilities for the elderly and handicapped will surpass those of any other mass transportation system by offering them 100 percent usage of the system. The facilities designed into the system at a cost of $8 million are due to the efforts of the Architectural Barriers Committee, Easter Seal Society for Crippled Children and Adults, Alameda and Contra Costa Counties.

The original system concept, as authorized by the public bond issue in 1962, did not include these provisions for people with severely restricted mobility. At that time, I initiated a campaign to secure the present facilities, starting with endorsements from the elderly, the handicapped, and the general public. A variety of methods were used to obtain the en-

Mr. Willson is Senior Economic Analyst, Kaiser Foundation Health Plan, Inc. He has been active for many years, through the Easter Seal Society, in many architectural barriers committees at both county and State levels in California. Since 1964 he has been a volunteer consultant to the Board of Directors, San Francisco Bay Area Rapid Transit.

dorsements and support for the project from a large number of individuals and organizations.

It was, of course, imperative that the strongest endorsement and support should be obtained from the organizations interested in the welfare of the elderly and handicapped. Continual meetings with these organizations were necessary to trigger letter campaigns to BART and the State Legislature. But to obtain the support of the general public, many of my evenings, especially in the early years of the project, were devoted to speaking engagements at service, church, professional, and civic groups. Thus, the project was not "sold" with fanfare and publicity, but by person-to-person contacts.

It took solid facts—and lots of them—to convince the BART directors and staff that their original plans would prevent access for approximately 4 percent of the population whose mobility is severely limited. Consequently, I assumed the role of volunteer consultant to the district since early 1964 in urging that the needed facilities be provided for in the initial design and construction of the system.

Existing public transportation systems present virtually insurmountable barriers to the elderly and handicapped. The necessity and extent of special facilities needed was understandably new to BART officials. Educating them to new concepts took statistics, and "friendly persuasion," such as pointing out BART's responsibility to provide transportation to all of the public.

I put in many hours at BART in meetings and with individual officials to convince them they need not be overly protective toward the mobility-limited individuals. The message was that they should not be denied public activities in the name of cost, protection or personal safety. I pointed out that adequate transportation is often the deciding factor between being *dependent upon* society or family and being *independent within* society. The discussions dwelled on such questions as:

What if there is a power failure? What if a train develops mechanical trouble? How can these individuals manage in a large crowd of people? Will these individuals be safeguarded during fast acceleration or deceleration? How will these individuals arrive at BART and arrive at their destination after leaving a BART station? Will the other passengers' safety be impeded by these individuals? Wouldn't it be cheaper and safer to transport these individuals by taxi? How many elderly and handicapped will not be able to use BART as originally planned?

In 1965, BART adopted a construction policy for the subway stations whereby it would be possible to easily add elevators in the future, if funds were provided. In 1968, it adopted the policy that it would inform all concerned that the facilities for the elderly and handicapped would require an additional $5 to $7 million (later revised to nearly $10 million) and that the State Legislature be notified that the BART District would be willing to install the facilities if the additional money were provided from sources other than the BART District.

Once BART was convinced, construction policy was changed, and BART provided the estimated cost, our final objective was to secure authority and funds for the elderly and handicapped facilities from the State Legislature. This authority was accomplished through the enactment of the Assembly Bill No. 7, Chapter 261, which was signed by Governor Ronald Reagan on June 6, 1968. The basic provision of the law is as follows:

. . . It is the purpose of this chapter to insure that buildings and facilities, constructed in the state by use of state, county or municipal funds, or funds of any political subdivision of the state, adhere to the American Standards Association Specifications A 117.1–1961 for making buildings and facilities accessible to, and usable by physically handicapped . . .

This law was not directed specifically at BART but rather for all future construction of public buildings. Its passage required a massive statewide effort by many elderly and handicapped groups and individuals with individuals of the Easter Seal Society spearheading the effort.

A few months later, the State Legislature resolved BART's funds-to-complete shortage problems and specified funds for the elderly and handicapped facilities. Needless to say, many hours were spent with the State legislators to convince them that BART should also be designed for this special segment of the population.

When the BART system is completed in 1973, elevators will move the nonambulatory or semi-

Special telephone for the handicapped is lower, more accessible. Phones will be equipped with a volume control button for the hard of hearing.

ambulatory person vertically between street and train platforms. All elevators will be equipped with telephones for calling the station agent and will have controls within easy reach of the wheelchair occupant. In addition, braille symbols on elevator door casings will indicate street, plaza, and train platform levels to add yet another dimension to total ridership as one means of accommodating blind persons within this passenger segment.

Toilet facilities also have been designed to accommodate individuals with severe mobility limitations. The door widths are wide enough for persons in wheelchairs, and restrooms will be accessible to the wheelchair occupant.

General public stairs will have handrails on both sides that will extend 18 inches beyond the top and bottom steps. Special parking facilities will be provided for the handicapped, with wider-than-usual stalls located close to the station and to the elevators reserved for the mobility-limited individuals.

The BART passenger trains were also designed with handicapped persons in mind. A wheelchair occupant can easily ride over the gap between the train platform and the car floor, can easily pass through the car door, and move from one end of the car to the other.

A combination of loudspeaker directions and easily-read signs will aid the BART patron with impaired sight or hearing. Guide dogs will be permitted and the station attendant will assist anyone as required.

Other facilities for the handicapped include special service gates and fare collection machinery in stations, a communication system that includes closed-circuit television, special directional signs, and the low placement of telephones with volume control and elevator buttons.

This has been a very rewarding project for the elderly and handicapped of the San Francisco Bay Area, and it will surely guide similar planning for mass transportation systems in the U.S. and elsewhere. After all, BART is the laboratory demonstration for the new rapid transit technology. Complete access for all riders is only one of its firsts.

Through the closing months of construction, I will continue to assist BART in facility inspections, special training for personnel, and printed guides for the elderly and handicapped. BART and I are both proud of "our" system and our roles in providing these facilities.

During the first inspection of a station that included a train ride, the feeling of being able to move unassisted through the station and onto a BART train was that of an adventure into the unknown. There is special personal pride in being the first handicapped person in a wheelchair to use a subway train, and to again represent all handicapped travelers who will use the BART system in years to come. I'll never forget the *sense of freedom* that I experienced as I boarded myself on the BART train.

I refer to BART as Phase I, or the beginning of solving transportation problems for the elderly and handicapped. I'm now working on Phase II, which is to provide barrier-free access to the bus systems in the San Francisco Bay Area. The major problem for wheelchair occupants and others with severe mobility limitations for accessibility to the bus systems is that one or two transportation systems cannot afford to absorb the bus redesign and tooling costs. Furthermore, the bus systems cannot afford to scrap the existing buses to purchase redesigned equipment.

On these assumptions, I appeared before the U.S. Senate's Special Committee on Aging in October 1971 with three recommendations:

Author and California's poster boy for this year's statewide Easter Seal Society Campaign, Eric Staley, await arrival of the San Francisco area accessible subway train.

• That a federal law be enacted making it mandatory for all newly-built buses to be equipped to accommodate wheelchair and other elderly and handicapped passengers; that federal funds be made available to the bus systems for the purchase of accessible-to-wheelchair minibuses, etc., to be used as a substitute system during an *orderly and planned* conversion to newly-equipped buses and complete service to all the public.

• That a federal law be enacted making it mandatory for all public transportation systems, including air transportation, to be accessible to and usable by the elderly and the handicapped including the nonambulatory in wheelchairs.

• That no separate transportation systems be developed for the elderly and handicapped, except in rural areas where no public transportation exists, and areas with a planned bus conversion program. In my opinion, this type of segregation would lead to higher cost and inadequate transportation for the elderly and handicapped. It seems practical to avoid any duplication of facilities—and additional operating expenses—when thoughtful planning and thorough consideration can produce a single system for all.

This completes my report on what has been done to date in improving transportation opportunities for a sizable segment of society too long left out of transportation planning. Has it all been worth it? When you have the opportunity to experience that wonderful sense of *FREEDOM* that goes with your first BART ride, you will know the answer is YES.

UNBINDING

The Homebound Through Mobility

Joseph T. Weingold

My experience for the last 20 years in the field of legislation to ameliorate the plight of the handicapped has led me almost inevitably to the conclusion that many of the disabling conditions of the handicapped or the handicapping conditions of the so-called disabled are not necessarily inherent in the conditions themselves, but consequences of the lack of services that they need, over and above the so-called "normal," in order to bring them into the mainstream of society.

I must confess to an uneasiness with the term "homebound." It connotes to me a prisoner-like effect, which may be true, but nevertheless is accusatory against the community. This, in no way is to denigrate the important efforts being made by a number of rehabilitation agencies, especially in the field of supplying work to the homebound to give them a sense of responsibility, contribution, and even some degree of social participation. This, of course, is important if we accept the whole concept of "homebound."

Why are these people prisoners in their homes? What prevents them from getting out of their homes into their neighborhoods, out of their neighborhoods into the community at large, into the world? These are the things that we must examine instead of accepting, a priori, that some people are homebound and we must try to ameliorate their conditions in their homes.

Mr. Weingold is Executive Director, New York State Association for Retarded Children, Inc. This article is based on a paper he presented at The National Conference on The Rehabilitation of Homebound Persons, Arden House, Columbia University, February 19–21, 1971.

At a hearing of the New York State Joint Legislative Committee on Mental and Physical Handicap, more than 30 physically handicapped persons in wheelchairs appeared and two or three testified on their behalf. The theme that ran through all the testimony was: "give us mobility." It may be an oversimplification, but certainly we must start from the premise that most physically handicapped persons are homebound because the means for mobility, except perhaps in the home, are not available to break home bonds.

As we examine the state of programs for the mentally retarded 20 or more years ago we find a great number of them who could be classified as "homebound," defining homebound as the inability to get out of the home because of the person's own shortcomings or the failure of society to provide meaningful activities in order to get the person out of the home.

The number of mentally retarded who could thus be considered homebound some 20 years ago is astounding, even for the educable. For example, in New York in the school year, 1950–1951, there were 1,081 classes for educable children in 118 school districts serving 17,696 educable mentally retarded children. How many educable retarded children were there? In 1937 a special study of the Board of Regents for New York State found that 2 percent of all public school children were so mentally retarded (educable) as to need special classes so that if we had an enrollment for about 2 million in 1951, 40,000 should have been in special classes. Many of these were in the regular grades,

it is true, but many were not and therefore could be considered homebound. What was happening to the post-school educable retardate? No statistics were even kept as to how many mentally retarded were placed in industry, and I dare say there must have been very few. We know that there wasn't a single specialized workshop for the mentally retarded in the whole of the U.S. Were they homebound? Certainly they were not in the mainstream of life and many of them were neighborhood bound if nothing else.

In the case of the trainable, we can be even more specific. In 1950 there were 39 classes in New York State serving 550 trainable children; 37 of these classes were in New York City. Who ever heard of a trainable adult being placed on a job in that era? Where were they? Tract after tract tells of the trainable sitting at home watching television all day. Half of them were in institutions (certainly homebound) and nowhere was there even an opportunity for them, even if they had the mobility, to find work in a sheltered or any other kind of environment.

So in my definition of the term, 20 years ago most of the mentally retarded were homebound in the largest sense of the word. What broke these bonds?

Two things broke these bonds: the furnishing of mobility and the creation of opportunity in the community to which mobility enabled the handicapped to come. The first was accomplished by the provision of mandatory transportation of the handicapped to and from school in the Education Law for the school aged, intensive programs of travel education for the post school-aged population who were unable to travel alone; in the case of the doubly handicapped, such as cerebral palsied mentally retarded, the provision of special buses with hydraulic lifts; the provision in public education of mandatory classes even for the severely handicapped or State aid for private schools where the handicap was so severe that the school could not handle the pupils; and finally the provision for vocational rehabilitation facilities for this class of handicapped, previously unserved in the community.

The question might be raised, what about the very severely handicapped? Wouldn't it be impossible to get them out of the home? Of course, there may be some so severely handicapped that this question must be answered in the affirmative. But I believe each case must be determined by itself and I cannot conceive of any except on their backs who would be so handicapped as to be incapable of being helped to get out of the home if there were proper facilities for movement. In the case of the mentally retarded, the problem of community facilities for the adult unable to participate in a sheltered workshop because of social or intellectual limitations was met head on through the creation, initially through a federal grant, of occupational day centers where the focus is on social development of skills on a most elementary level in a progression series, hopefully to get them into more sophisticated employment.

It is interesting to note that in the Occupation Day Center operated by the New York City Chapter of the Association for Retarded Children, of the more than 100 participants, all of them with I.Q.'s under 50, and most with I.Q.'s under 30, only a handful are still being transported by bus—the remainder have been taught to travel alone.

If we judge now by the number of severely mentally retarded being served outside their homes, I think we can begin to be very hopeful that the same can be done for the physically handicapped as well. Against the handful of trainable mentally retarded in public school classes 20 years ago, for the year 1969–1970 it is estimated that there will be 6,500 mentally retarded pupils going to public school. In addition some 6,000 are being taken care of by private facilities with State aid because they are considered too severely retarded even for public schools to handle. So against 30 or 40 in 1950 we now have over 12,000 being served in the community.

Equally dramatic is the enormous increase in the number being served in sheltered workshops and those placed in industry. For example, the recent survey of the number of long term mentally retarded sheltered employees in New York State showed about 1,700, and this is a small number compared to those who might be served if there were enough money and facilities.

It is my contention that the 12,500 now going to public school and being transported at public expense or being taught to travel alone have broken bonds of the home. This is certainly also true of those who are attending sheltered workshops and traveling to and from home alone.

Most dramatic is the increase in the number of doubly handicapped, physically handicapped and mentally retarded, coming out of the home and into the community both to education and to sheltered employment. This has only happened because they have been given mobility.

It is an interesting sidelight that the Education law in the State of New York, although recognizing home

teaching as one of the ways in which to serve the physically handicapped, did not recognize home teaching (until quite recently) as a means of offering education to the mentally retarded. The parent groups involved in mental retardation are opposed to the inclusion of home teaching for the mentally retarded. The only reason that this is in the law is (a) to avoid the cost of transportation, or (b) to avoid the cost of starting a class with less than 10 children. Neither of the reasons is acceptable in our society. Home teaching may be the first step in forging the bonds of the "homebound."

I understand quite well the difference in logistics of getting an ambulatory mentally retarded person out of the home and getting a nonambulatory physically handicapped person out of the home. But this is merely a matter of degree, not quality. It may be more costly, it may be more difficult, but it is not impossible.

If we indeed mean what we say when we say that rehabilitation should be concerned with bringing a person up to his maximum capacity, then we must not limit that capacity by the personal resources of the handicapped. This capacity must be measured by the capacity of society to provide the means that the individual cannot himself provide. This includes locomotion, the opportunity to get out of the home, and the oppotrunity to work as others do in the community.

Let us face it, in order to be a truly accepted member of society we are expected to spend our days in a socially accepted way. A socially accepted way is one in which one gets up in the morning, leaves the house, aparently goes to work, and comes back in the evening. Anything else is abnormal in our society; anything else is something that we must try to change.

There is a great lesson to be learned from what has been done with the mentally retarded. It is my belief that as they have been brought out of their homes and out of isolation into the world, so too can most of the physically handicapped, if not all.

It seems to me that one of the first things that the agencies engaged in helping the physically handicapped at home must do is embark upon a campaign to interest the community through their legislature, especially, because that is where the money is going to come from, to make a quick study of the transportation needs of the physically handicapped including the most severely handicapped. It is my contention that this can be done quickly if there is this concerted effort. It is also my educated guess that out of such a study will come a plan for breaking the bonds of the homebound so that the term will become in a few years obsolete.

The very concept of homebound today, with all our technological knowledge—our ability to put a man on the moon, if you will (and who was more homebound in relation to space a few years ago than man?)—is outdated and unnecessary. It is, in most instances, as for the mentally retarded in State institutions, a confession of society's failure to provide normal alternatives. If we in the field of rehabilitation do not take the lead in this, no matter how much we improve our techniques for providing work to the physically handicapped within the confines of their homes, we will have failed them, will have taken the easy road, and will have succumbed to a societal inertia against which we must exert all our efforts.

Airline Transportation For the Handicapped and Disabled. Stanley G. Hogsett. The National Easter Seal Society For Crippled Children and Adults, 2023 West Ogden Ave., Chicago, Ill. 60612. 45 pages. $1.25.

The monograph surveys the policies and procedures established by 22 domestic airlines as well as by the Air Transport Association of America and the Civil Aeronautics Board in handling handicapped passengers.

The report offers assurance that with careful planning even those with severe disabilities can surmount special problems and enjoy the convenience and pleasure of air travel.

Information the author has compiled holds the resource help needed by all persons who accompany a disabled individual or assist with his flight plans, including physicians who must make decisions regarding fitness for air travel of patients seeking this advice.

Areas discussed are:

- medical criteria considered by airlines and physical and mental conditions that might be contradictory to airline travel or require special planning,
- services offered to handicapped and disabled passengers by individual airlines, and
- requirements set generally as well as specifically for persons with limited mobility and those who use oxygen or who are blind, pregnant, mentally retarded or mentally ill, or handicapped by other conditions.

HANDICABS

John H. Dunn

WHAT GOOD is a job if you can't get to it?

Len Lovdahl asked that basic rehabilitation question about 15 years ago. His answer was a transportation service for the handicapped. Called Handicabs, it has developed into one of the most successful ventures of its type in the nation.

His answer also led to one of the better success stories in vocational rehabilitation. In fact, Len's own rehabilitation and the development of his company cannot be separated. They are one and the same.

The story begins with the diagnosis of his muscular dystrophy when he was six. His experience with transportation for the handicapped can be said to date from that time. To get to school in Milwaukee, he became dependent on special busing, but he admits that in those early years he had not yet planned to take over the system. That was to come later, when he would head up a firm responsible for transporting 1,400 handicapped children daily to special classes.

After high school Len became a DVR client in the still quite new homecraft program.

"I look back on those few years after I got out of high school and realize how important they were," Len recalls. "The homecraft teacher kept stirring the coals in me so that I wasn't able to settle back in any kind of self-pity or where I could feel that I was forgotten. He was in there trying to hit some nerve."

Ironically, the homecraft teacher he remembers so affectionately as Joe developed lateral sclerosis while Len was still his student.

"Now Joe's long since gone, and here I am still plugging along."

Len had always liked art, and DVR encouraged him and tried to find outlets for his products.

"I did some cartooning for a few years while living at home, and it was a thrill when Joe got my first cartoon published in the vocational school paper. I also wrote a novel which won a contest and brought in some money, but it certainly wasn't close to a living."

In that period Len had yet to break away from home, but when he finally did, the wheels of change started rolling.

"The thing that really brought me out of my shell was my trip to Boston. I heard of a doctor there who supposedly had a cure for muscular dystrophy. He was claiming astronomical results."

Len went out there with a friend who had just gotten out of the army.

"We were there about 10 months. Although the treatment had very little benefit, there are two sides to every coin. I found that by being away from my overprotective family, I had to start thinking about my own particular needs, had to worry about whether I had a clean shirt or whether there was toothpaste left or just what was happening."

When Len finally admitted to himself that the treatments weren't doing any good, he headed back to Milwaukee.

"And when I got here I was no longer content to stay within four walls any more. I had to find some way of getting out and doing something. At that point my mind had changed about myself and what I was going to do.

"There's an old saying, 'Prayer changes things.' And I thought that

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Mr. Dunn, a frequent contributor to this magazine, is Public Information Officer, Wisconsin Division of Vocational Rehabilitation.

The Story of a Bold Transportation Adventure for the Handicapped in Milwaukee, Wisconsin.

was true for a long time until I saw another saying on a guy's wall, 'Prayer changes me.' I think that a lot of people do some praying and figure that all of a sudden circumstances are going to change. Things don't work that way. But I think you have a fighting chance when your own mind changes toward what you think is possible."

Len's prayers had not changed the muscular dystrophy, but with his new outlook he could better plan how to live productively within his limitations. About that time his brother started a business.

"He asked me to come to the office to answer the telephone while I was drawing and writing. He didn't see any possibility of my being able to contribute to the business. This shows the level at which my own family's thinking was. They lived with the viewpoint 'We'll always provide for Len, we'll be good to him. We're going to take care of him.' They thought that was the essence of being a good family, and it was, but I couldn't be satisfied with just that."

While Len handled the office phone, he also could get a glimpse of what starting a business was all about.

"I watched them go through the pangs of lack of capitalization, of getting money tied up in accounts receivable, and within less than a year I watched the business go right down the drain. I had listened to the problems of interrelationships of people who are in business and how quickly (unless those persons are of one mind and purpose) this can destroy the whole effort no matter how good the general prospects of the company might be."

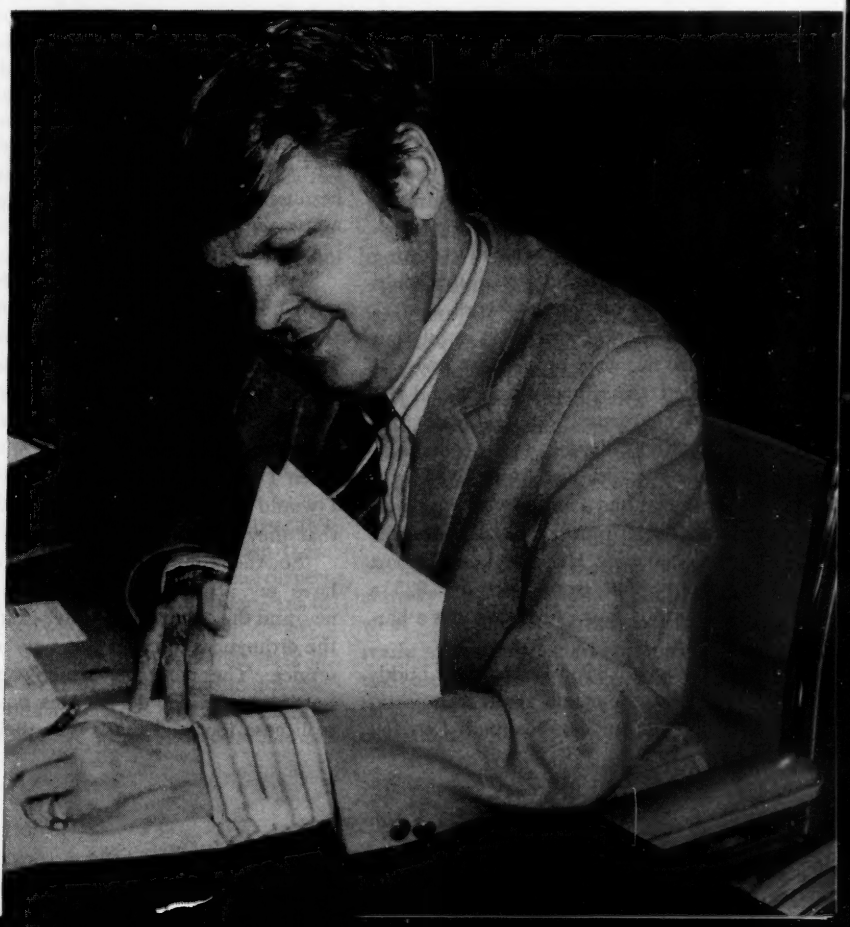
These observations were to profit Len a few years later, but at the time the business failure came as shock.

"It was a great letdown, because by that time my brother had begun to see some possibilities in me and had begun to pay me $25 a week. That was about 1952."

But Len was not about to retire after his first work year. He called several Milwaukee insurance companies, explaining his plight to personnel directors and managers.

"The only serious bite I got was from Badger Mutual Insurance Company. As the personnel officer wheeled me into her office, she appeared to be wondering 'What is this guy going to be able to do here.' The interview went very politely but very coldly. There I was—no experience and needing help to get around in my wheelchair. At the end of the interview I wasn't surprised when she said she would call me. I could read into those words that there would be no job."

Len Lovdahl, founder and president of Handicabs.



But while Len waited in the lobby for his brother, he had a chance meeting with the president of the insurance firm.

"When he saw me sitting there, he walked over and asked why I was there. I said I was applying for a job, and he pulled up a chair and started talking to me. He wanted to know my interests and background. Somewhere along in the conversation I said 'I don't care what you pay me. Just give me a chance.' He said to me right there he'd give me a job, and within a week he had fixed up a desk for me. He put me through all of the training that any normal individual went through. Of course, there were many things I couldn't do. He even had me filing. I don't use my arms at all well, but he had me putting stuff in drawers and everything."

The president emphasized that he would not judge Len on his limitations.

"I am going to judge you on what you can do."

The man's name was Gary Kamper, now deceased.

"He was very much ahead of his time," Len said. "He had several handicapped persons working at Badger, and he was instrumental in the founding of the Kiwanis Children's Center."

Len had worked for the insurance company 4 years when his big transportation crisis threatened to destroy everything. His brother-in-law could no longer drive him to work.

"So here I was with a job but with no way of getting there. I called the cab companies and the bus companies, but they said they couldn't help me. If I needed lifting, I could just forget it. Fortunately, I had a buddy who was a hospital orderly and who could use some extra money. He agreed to transport me to and from work for $25 a month. I know now that was a bargain."

Early in 1958 Len and his buddy had a serious talk about transportation of the handicapped. Len felt strongly that there should be a service for the many persons such as himself in Milwaukee. His buddy saw the possibilities immediately and suggested they go into business.

"But I was more cautious. I could see only the negative side and why it wasn't going to work. Even though we had little money and no experience, he insisted we ought to try it. He borrowed $1,000 from the hospital credit union, and I saved $1,300 working 4 years at Badger. We got other loans to bring our capital up to about $3,500."

Their timing was good. Volkswagen had just come out with its first microbus, the type of van they would need in their new venture. Nothing similar was yet available.

"Now the company has 100 buses and vans and 125 full- and part-time employees," Len said.

When he applied for a license to operate a cab service for the handicapped, the city told him an ordinance would have to be drafted covering such a service.

"In the hearings that followed we had effective opposition from a large bus company that was doing handicapped transportation. They tried to prove that we were neophytes, that we didn't know what the dangers were in handling people, and that there was no real need for this because they were already providing ample service for handicapped people in Milwaukee.

"When I went before the committee, I noted that I had ridden on these buses for all of my school years and that they had a great service which enabled me to get my education. But I said that when I wanted to get around and get a job, and when I wanted to go to the clinic, I would call them only to be told that they didn't have such service.

"So the committee decided to have my attorney, the city attorney, and the company attorney draft the ordinances to cover this type of service. The company which opposed me decided to get this type of license too, and that's why their attorney helped work out the codes. This took almost 2 years, during which we operated on a temporary license. We survived. The other guy didn't."

The city opposed the VW bus because it didn't have a rear door.

"But by the time the codes were finalized, Ford had come out with a bus that had the full door in the back, and so we were able to comply with the law anyway. Recently we bought some Dodges. I plan to settle on one make. Since we now do our own servicing, it would be cheaper this way."

Len went into business thinking he was going to provide cab service for the handicapped, and he didn't look much beyond that.

"But it wasn't very long before someone from Wauwatosa contacted me about a few kids they wanted to get into a special program, and we got that little contract. And then one thing led to another, and we were able to get the contract with Waukesha county to bring their kids into special classes in Milwaukee. But the thing that changed this from a small into a big business occurred in 1966 when I got the contract for the orthopedic program in the city of Milwaukee. This meant about 20 buses, and so in one year I doubled my fleet. It's the key contract with us, since it calls for so much special equipment."

Some of Len's buses do not handle orthopedic cases and thus are not specially equipped. Others of his big buses have a special loading door on the side and a ramp. Four to eight wheelchairs can be placed along the walls and belted in. His small vans are unique because of the special ramp which adds to the vehicle's safety.

"It's a small folding ramp designed and patented by my brother. Years ago when we started out with the VW, the question arose, how are you going to roll the wheelchair into the van. Because the VW didn't have a drive shaft we could put a

A Handicab with ramp extended.

ramp in a rack underneath. This worked fine until the first winter. Then we found that the ramp would freeze into the rack, and you couldn't get it out.

"I told this to my brother who was in the steel business, and he devised a folding ramp which could be brought in out of the weather. His first ramp was heavy, unsightly and very hard to lift, but over the years he refined it. He first developed a ramp that had a couple of holes in it, and he had a kind of folding ladder which could be used for an ambulatory passenger. You hooked this little stairwell into the ramp, and the person could walk up into the van. If you needed the ramp for a wheelchair, you could take this off and store it away.

"Then one day my brother called and was very excited. He said he had just been able to incorporate the steps into the ramp itself so that you don't always have to be hooking on the stairwell. Now the ramp as it is produced today is a folding ramp. When you extend it out from the vehicle, these three steps fall into place, and when you fold the ramp up the steps go flat. Everything we do is geared to making it possible for one man to handle everything in as short a time as possible and yet do it safely."

Len noted that his brother now has his own business devoted to making ramps.

"That is the brother who hired me for his office, a kind of reverse of the early situation."

Len feels he's been lucky in recruiting good staff.

"You'll always find the type of person who considers it just another job and shows little interest. They don't last very long. But I've got a good nucleus of drivers and a growing number who have been with me quite a while because they get attached to the kids."

He said that most of his drivers never had previous contact with the seriously handicapped.

"They're suddenly exposed to the individuals we transport, and they come away shaking their heads saying they can't understand how much difference there is in the attitude of a group of handicapped children and those who have never had any serious problems. They see a happiness, a spontaneity, a spirit they can't quite equate to the situation these kids are in. This is what some drivers like about the job, and they want to stay with it."

Obviously his pioneering work in the field of transportation for the handicapped has produced a rich experience which should be shared, and Len is in the process of doing just that.

"I'm trying to develop a manual which would instruct someone interested in starting this kind of service. I keep saying it is going to be done shortly, but it is still a little way from completion. The material is all there, and I've got the outline. It's a matter of filling it in."

With 14 years of unique experience back of the manual, he had hoped to interest a large publisher in it but without success.

They questioned whether there would be enough interest in the manual to make it commercially profitable. I feel there would be. Just recently I was called in by an insurance company in California as a consultant. They wanted to examine the possibility of setting up an injured claimant in this type of business."

Len feels there is need in every city for a service that provides transportation somewhere in between a cab and an ambulance. He sees his Handicabs as an arm of the hospital, clinic, and schools as well as the means whereby the handicapped can enjoy some social life. In addition to the 1,400 children he transports daily, there are between 150 and 200 individual trips with passengers who can't use other transportation.

"I get a great deal of satisfaction out of what we are doing now. I feel that no matter how good a facility is, unless you can get the children and adults to it, that facility can't do anybody any good."

He recognizes that while some consider transportation of the handicapped as a necessary evil, there is growing awareness of its importance.

"Most people think the costs are too high. Yet I think that when one actually sits down and considers what Handicabs transportation really accomplishes, and if you take the cost of transportation as it relates to other costs, it isn't at all that out of line."

Driver Training

James D. Mathias

At the Pennsylvania Rehabilitation Center in Johnstown, Pennsylvania a driver training course was started in 1962 in response to the needs of clients. The center is operated by the State's Bureau of Vocational Rehabilitation (BVR).

Before the program began several clients had completed training successfully at the center but were unable to get jobs or hold them because they couldn't travel to work. Public transportation was either unavailable or could not be used due to the nature of the disabilities.

Originally the course was limited to behind-the-wheel instruction for persons with impairments of the lower extremities. It wasn't long before general client needs for this training became evident. In answer to this the course was opened to any unlicensed client who could benefit from the service.

In 1967, the course was revised to include a minimum of 30 hours of classroom instruction, in addition to the orignal behind-the-wheel training, to conform to a State Department of Education recommendation. All unlicensed drivers who have not previously taken driver education in high school are required to take this instruction if they need to drive.

The course averages 10 hours behind-the-wheel instruction and 30 hours of classroom work. Situations alter cases, however, and Walter Misner, driver education instructor since the program began, points out that some persons with severe handicaps, such as quadriplegia, require up to 35 hours of actual driving instruction. Occasionally a client may require much less than the 10 hours behind the wheel if he has been a licensed driver before illness or injury brings him to the center.

Mr. Mathias is Public Information Officer, Pennsylvania Bureau of Vocational Rehabilitation.

From January 1968 through July 1971, 255 clients were provided with driver training. Of these 212 passed the Pennsylvania driver examination and 33 failed. Three clients were from other States and were required to take driver exams in their home States, while seven left the center before taking the examination and the results of their tests are not known.

The behind-the-wheel instruction time needed for successful licensing varied from a low of 3 hours to a high of 35 hours. The majority of the clients had never previously driven an automobile. The youngest client was 16 years of age, the oldest, 66. The age range of 16–19 accounted for 34.5 percent of the total, while 41.9 percent were between the ages of 20–24.

By disability groups, the distribution is as follows: Mental-emotional, 74; spinal cord involvement, 49; orthopedic, 20; cerebral palsy, 20; impaired hearing, 13; post polio, 11; neurological, 11; cardio vascular, 10; CVA (hemiplegia), 9; amputations, 6; epilepsy, 6; endocrine or metabolic, 5; arthritis, 3; impaired vision, 3; other (not elsewhere classified, 15.

Consideration for training and referral to the course is controlled by the rehabilitation counselor to whom the client is assigned at the center. Criteria for referral are: (1) Client is doing satisfactorily in his vocational training, and job chances after training are considered good. (2) Client could not be instructed by his family, or there is no driver training facility equipped with the special adaptive devices in his home area where the service could be purchased. (3) Counselor recognizes the need for the client to be able to drive and approves this additional service while other rehabilitation services are being supplied. (4) Medical feasibility is predetermined

by medical personnel. (5) Client applies for and receives a valid learner's permit from his home State office of motor vehicles.

Once the client is enrolled for the 4-to-6-week course, he finds a good setting and appropriate equipment for the instruction. A large room serves as both a classroom and a garage for the two vehicles used in the instruction. Equipped with an overhead type garage door, the room permits training in pulling into and out of a garage.

For the driver training vehicle, the Chrysler Corporation provides a new car with automatic transmission on a loan arrangement at least once a year through the local Leitenberger agency. Dual controls and hand controls are installed at the center. The car being used now is a 1972 Plymouth. The center bears the expense of operation, maintenance, and insurance.

A recent model, two-door Pontiac body shell (without transmission or motor) has been donated by General Motors through the local Salay agency for teaching transfer from wheelchairs. The occupational therapy section helps occasionally with some of the teaching on transfers.

Robert C. Lohr, 18, paraplegic from congenital spina bifida, receives instruction from Walter Misner, driver education instructor.

A driver simulator recommended by the AAA is a valuable adjunct to the course and is available for practice in the instruction room. It is the same type used by many high schools and others in driver training programs.

In addition to the vehicles, the materials and procedures listed for the course include class discussion, lecture, oral reports, notebooks, tests, pictures, charts, filmstrips, films, and, of course, practice driving.

The classroom part of the course is organized under eight headings as follows: The traffic problems; learning fundamental driving skills; the driver; understanding your car; traffic laws; the art of driving; cooperation among highway users; and meeting the challenge.

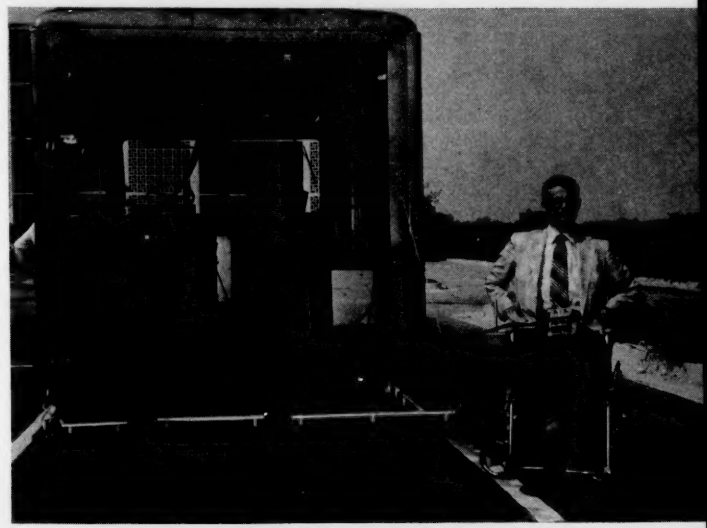
Behind-the-wheel instruction is in 10 units. Unit I, for example, includes: Review parts of the car; review positions and use of gauges, safety devices, and control devices; review the car systems; review the checks a driver must make before he starts the engine; practice the steps in starting and stopping the engine. Other units cover the various needed driving and parking skills and attitudes. The final unit has three parts: Practice getting the car into the street; experience in city driving; taking the driver's examination and passing it.

Instructor Misner does some group instruction. Where scheduling difficulties make it impossible for a client to be in a group, prescription training makes it possible for the person to work on assignments by himself.

The driver training instructor also teaches a defensive driving course for new BVR employees who must drive in their work, and also, on occasion, teaches the same course to new employees of other State agencies in the Johnstown area. State employees must show completion of the defensive driving course before they may obtain a State car for a business trip.

The driver training program is a significant supplement to the comprehensive facility's many other rehabilitation and training services. It opens up a wider field of job opportunities to the handicapped person and prevents him from being locked into unemployment by lack of transportation. It releases the disabled client from dependence on public transportation, which is often unavailable or inaccessible.

The Long Journey Back



Rebirth is much talked about in religious, moral, metaphysical, and philosophical circles. Physical rebirth is not as common, but it happens to some people who suffer the labor pains of rebirth through an accident. So it was with David Webb. A sunny afternoon's romp at a local swimming pool in Atlanta marked the end of the old Dave. Though most people would not have believed it then, Dave's new life was to flower into vitality and usefulness. Albeit the process was slow and arduous.

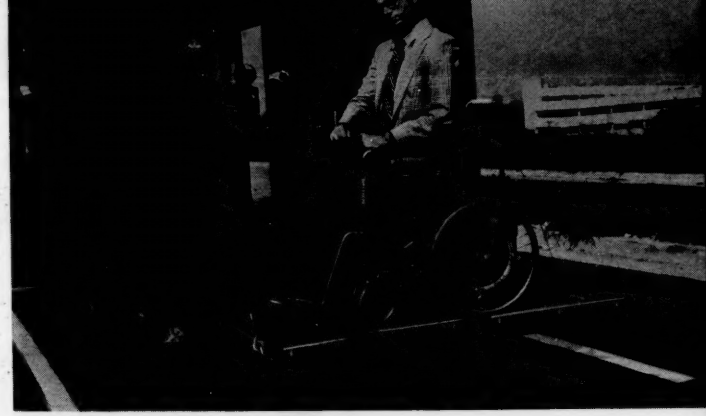
After the accident that left him quadriplegic, about the only physical thing that Dave had left was an active mind. He would not tolerate the thought that his body would not respond to his mind's commands. In the hospital and at the Warm Springs Foundation in Georgia and at the Institute of Physical Medicine in New York, he was taught

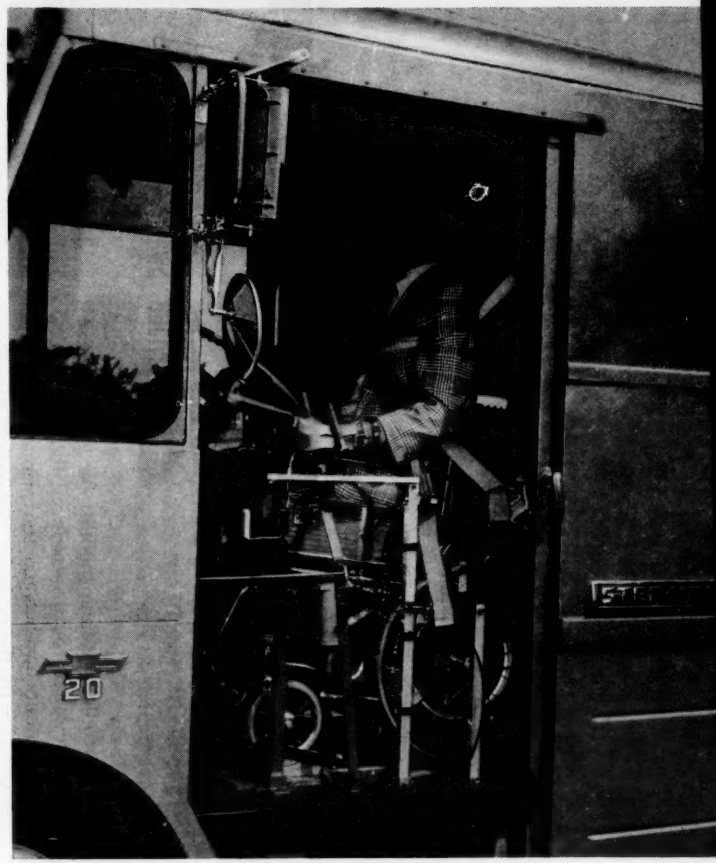
at the Institute of Physical Medicine in New York, he was taught every movement possible to relearn the actions that somehow had been drained from him on that fateful day. That was a long road to travel, but he made the journey.

The path to education seemed narrow at first, but with Georgia DVR help, the path opened into a thoroughfare that led to Emory University; to a bachelor's degree in political science; onward to a law degree.

Education that lies fallow withers. Dave knew it. After a couple of wrong turns and dead ends, down the job-hunting stretch, he heard of a vacancy in the legal department of the Federal Reserve Bank in Atlanta. He got the job. And he got a present from his parents—his first electric wheelchair to travel the inner roads of his new office building.

A good education, a good job; what more? Dave thought about being delivered to work every morning and being picked up every night: a lot of street unfolded between home and job! He talked it over with his father. What he needed for complete independence, they decided, was a vehicle that he could enter independently and drive himself. Although neither of them were engineers, they designed the equipment needed and modified a Chevrolet step van to hold it. At right, you may see the results of their handiwork. It represented a long journey back for Dave Webb. He maneuvered over many a rut in the road, but you might say he had the right drive.





Trends in Transportation

Moving With the Aging

Ryland Swain

Most people take their mobility for granted these days. Since Henry Ford introduced the Tin Lizzie, the automobile has become the primary mode of transportation for the majority of people in America. Walking as a supplement to the automobile or as a source of exercise and relaxation is also a dependable means of mobility for most healthy people.

There is a segment of the population, however, for whom a problem with mobility involves more than the car being in the repair shop or being too young to have a driver's license. For the elderly and for the physically handicapped, a problem with transportation is sometimes a matter of life or death.

For example, consider Mr. J who is 69 and his wife who is 65. Because of their reduced income in retirement and because Mr. J's driver's license was not renewed due to failing eyesight, they were forced to sell their car. Their children live in another city, and the children's twice monthly visits do not suffice for all the doctor's appointments, shopping, and other trips that Mr. and Mrs. J need to make.

The neighborhood in which the J's live is not what it once was as crime and high speed traffic are increasing, making walking neither pleasant nor safe. They manage to ride the city bus once in a while, however, but the $2 round trip fare for two does not allow for many such excursions. In addition, Mrs. J has arthritis and finds it difficult to get on and off the bus, as well as to walk the three blocks to the bus stop (especially in bad weather).

Miss Swain is a Specialist in Aging, Office of Research and Development, SRS.

The J's have some friends in the neighborhood, but many others live in other areas of the city and are also without cars. Most of the clubs they've been in for years meet on the other side of town, which is where the theatres and other recreational facilities are located.

Mr. and Mrs. J are victims of the shrinking of their world, and their situation is fairly typical of countless elderly people—and perhaps better than many.

Only recently has the role played by inadequate transportation in the isolation and poor health of elderly people been recognized. Dr. Frances Carp, a psychologist now with the University of California at Berkeley, was the first to study transportation and the older person. She chose to look at retiree mobility in San Antonio and San Francisco. She found that these retired people make little use of community resources except for basic maintenance (medical and food) and that they are minimally mobile for informal social contacts. From what we now know, these findings are not surprising.

Dr. Carp also became aware of an interesting phenomenon—that older people are quite prone to put the best possible face on their situation, and that, indeed, the transportation problems of the elderly probably exceed their own remarks about them. This may perhaps be one explanation why the problem went relatively unnoticed for so long.

At the same time that Dr. Carp was exploring the mobility of the elderly from the social scientist's perspective, several communities began to experiment with special transportation services for the

elderly. In Chicago, under the auspices of the YMCA, a mobile van was enthusiastically received and reports are that it was able to serve 1,606 elderly free of charge in a 3-year period. Costs ran about $10,000 a year and were met through a demonstration grant from the Administration on Aging.

The Cape May, New Jersey, Transit Authority instituted a Volkswagen Bus Service with first priority for elderly people at five trips for $1. The revenue from this service only met 10 percent of the costs, and the rest was supported by a grant from the New Jersey State Agency on Aging.

Many cities also began to institute and assess reduced fare programs on public transportation facilities. San Francisco and Detroit were among the first to do so in the late 50's and early 60's. Those over 65, with proper identification (usually a Medicare card), paid up to half fare at nonpeak hours to ride the subways and buses. In both the Chicago and New York City programs, the mobility of elderly riders was significantly increased, although there was no evidence that ridership increased enough to offset the reduced income to the transit operator. Reduced fare programs are now in effect in more than 68 cities in the nation, and, while such programs are being recognized as a vital public service, most transit companies do experience a loss in revenue as a result of the reduced fare. Some cities subsidize the transit operator, as in New York, while other transit companies are absorbing the deficit, as in Chicago and Washington, D.C.

Dr. Carp's finding, the experimental projects, and the Administration on Aging's growing interest in mobility problems and solutions through improved transportation led to the first national workshop on transportation and aging, held in Washington, D.C., in the Spring of 1970. This forum provided an opportunity for presenting the transportation problems of the elderly to members of the transportation community and for acquainting the latter with the elderly's needs. Also, social scientists were given an overview of the central concepts of transportation design, economics, and operations.

As a result of the workshop's recommendations, the SRS office of Research and Demonstration's Division on Aging undertook several new research and demonstration projects which have the potential for providing transportation solutions. Under the leadership of the New York City Office for the Aging, and with the cooperation of the New York Taxi and Limousine Commission, taxicabs in the Fordham area of the Bronx are being organized to provide door-to-door service to elderly people on a group ride basis at reduced rates. It is too early to tell what the results will be, but we are optimistic that the program will work and that it will require no subsidy from public funds. All indications are that the project will furnish evidence to other taxicab and vehicle-for-hire companies that they can profitably serve the elderly population at a cost it can afford.

Other work with organizing volunteer driving pools through senior citizen clubs and with assigning escorts to assist elderly people in using public transportation are being successfully carried out in Raleigh, North Carolina and East Orange, New Jersey.

Remodeled school buses serve the aging population in Prince Georges County, Maryland. The operation is partially funded through an Older Americans Act Title III grant from the Maryland Commission on Aging.

Chicago YMCA Senior Minibus proved very practical for transporting older people.

Legislation with important implications for transportation for the elderly was enacted in 1970—the Biaggi amendment to the Urban Mass Transit Act. This amendment, sponsored by Congressman Mario Biaggi of New York, authorized the Urban Mass Transit Administration, U.S. Department of Transportation (DOT) to spend a portion of its research and demonstration funds on studies, operational demonstrations, and improvement in transit facilities to the benefit of elderly people. Although this amendment gave "permission" rather than making these activities a requirement for DOT, some steps have been taken to implement it.

Under a Federal Highway Administration grant, Abt associates of Cambridge, Massachusetts, has been studying the transportation problems of the urban disadvantaged, including the elderly. Other work by the Administration is underway on the travel characteristics of various socioeconomic groups, including the elderly; the art of providing transportation information to the elderly and handicapped individuals; and pedestrian barriers. In addition, the Urban Mass Transit Administration has developed several prototype Dial-a-Ride systems using buses centrally dispatched by phone request.

The systems hold great potential for serving the elderly at a reasonable fee. These new systems are also exciting prospects for the future of public transportation for all age groups since they offer a degree of flexibility and comfort not yet attained on urban mass transit. Their success will depend on careful and competent management in the organization of dispatching activities and on the level of ridership that can be obtained.

The elderly citizens who live in rural areas have more difficult transportation problems than their urban and suburban counterparts. The low elderly population density and the distances between their residences and their destinations make the economics of providing transportation complex. The rural older person, however, has not been forgotten. The Office of Economic Opportunity's rural program division has demonstrated various ways of organizing all available transportation facilities, including school buses, to increase the opportunities available for the aging rural person.

DOT's Federal Highway Administration also evaluated various alternative methods for providing transportation for both work and nonwork trips in Raleigh County, West Virginia. For trips which

would serve the elderly most, the study recommended, in order of least cost per passenger-mile: (1) use of school buses, (2) use of mail trucks, and (3) improved service from the local community action association bus.

The first White House Conference on Aging was held in 1961. There was no section devoted to transportation, although it was recommended that the Federal Government provide suitable, adequate public transportation for aged persons to enable them to maintain contacts and remain in their own homes. As testimony to the growing emphasis on transportation needs, planners of the second White House Conference (November 1971) devoted 1 of its 14 sections to this area. A variety of recommendations resulted.

Perhaps the most important recommendation states: "The Federal Government shall immediately adopt a policy of increasing transportation services for the rural and urban elderly. The policy should be flexible, encompassing various alternatives. Both system subsidies and payments to the elderly individuals may be needed, the choice depending upon the availability an usability of public and private transportation. Subsidies should be made available not only for existing systems, but also for the development of flexible and innovative systems, especially where there are no existing facilities. Financial support should be directed toward accomplishing program purposes such as: (1) Reduced fare or no fare transit for elderly people (2) operating and capital subsidies."

In an address to the delegates to the White House Conference, President Nixon set forth the goal towards which his administration would work: that transportation be an integral part of all service delivery supported through the Federal Government.

In the post-conference year, steps are being taken to implement these recommendations and pledges, as well as to more fully carry out the intent of the Biaggi amendment. HEW and DOT are presently discussing ways to join their efforts in developing transportation services and systems to make elderly people more mobile in their communities, while the Aging Research Unit of SRS is earmarking a larger portion of its fiscal year 1972 funds for further developmental work. The recent legislative proposals to open the Highway Trust Fund for support of urban mass transit and for making it more responsive to the needs of city dwellers hold potential for improvement of transportation for all people in urban areas, especially the elderly.

Transportation and Aging. Selected Issues. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. 208 pages. $1.75.

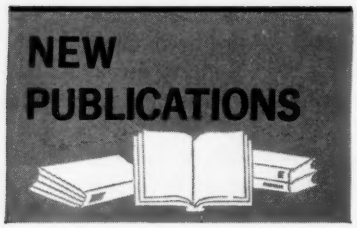
The papers appearing in this volume are based on the proceedings of the Interdisciplinary Workshop on Transportation and Aging, held in Washington, D.C., on May 24–26, 1970. As the Workshop's title implies, its participants came from a wide variety of agencies, both public an private, and from a diverse mix of professional persons interested in the subject of transportation and aging.

Initially, the papers survey the question of where aging and older people are today, as a population group, in relation to their environment, in their mobility needs, etc. Subsequently, they discuss transportation planning, engineering, and pricing and transportation policy perspectives.

One section of the report looks at various programs and efforts at improving transportation services for special groups. Accordingly, transportation programs in Chicago, Los Angeles, Kansas City, Cape May, New Jersey, San Francisco, West Virginia, and Menlo Park, California, are discussed. Guidelines for action and workshop committee recommendations compose the book's final statement.

The distinction between mobility and transportation is made and implied in many of the papers. The following excerpt from the foreword delineates that difference:

"Mobility and transportation are not synonymous. While complementing each other, they remain distinctly different. Mobility is an end, transportation one means to that end. Mobility implies the exercise of personal judgment and capacity for movement, transportation implies a means of movement. Thus, improving older people's opportunities for mobility will require more than improved vehicle design, rerouted buses, and traffic safety signals. The effort will require a totality of improved transportation services and improved programing for the aging. There is little point, for example, to the municipal transit authority's purchase of barrier-free buses to transport older people who have no place to go. Recognizing this, we are better prepared to examine the role of transportation in assisting mobility and acknowledge the significance of concerted Federal action on behalf of that effort."



Proceedings of Training Institute For Rehabilitation Teachers of the Blind Teaching the Newly Blinded Homemaker. Lois O. Schwab, editor. College of Home Economics, University of Nebraska, Lincoln, Nebr.

The proceeding's papers reproduced discuss many aspects of teaching the newly blinded homemaker. In addition, lesson plans are given on food preparation, home management, meal planning, and textiles, clothing, and grooming.

National Training Institute On Special And Technical Secretarial Occupations For The Blind. The Hadley School for the Blind, 700 Elm St., Winnetka, Ill. 60093. 9 pages.

The institute was held at the Sherman House in Chicago on May 19–22, 1971. The report summarizes the conference whose theme was: the time has come for action in opening job opportunities for competent secretaries with a visual impairment.

An Investigation Of the Self Concept Of Blind and Visually Handicapped Adolescents. Thomas Meighan. American Foundation For The Blind, 15 West 16th St., New York, N.Y. 10011. 43 pages. $2.50.

In this study, the author explores one of the most important aspects of personality development in the adolescent, the self concept, and how it is affected by blindness and severe visual impairment. While, according to this study, blindness or severe visual impairment does alter drastically some aspects of personality formation, not all personality traits are altered as drastically as others and academic achievement seems little affected.

The author is a professor of special education at Glassboro State College, Glassboro, New Jersey.

Assistive Devices and Equipment For Rehabilitation. Arkansas Rehabilitation Research and Training Center, Arkansas Rehabilitation Service, Hot Springs, Ark. 63 pages.

Sections of this monograph consider homemaking, wheelchair, and self-help devices and occupational and physical therapy equipment. The book is amply illustrated by photographs of each device described.

Advances In External Control of Human Extremities. Momcilo Gavrilovic and A. Bennett Wilson, Jr., editors. Division of International Activities, Social and Rehabilitation Service, 330 C St., S.W., Washington, D.C. 20201. 608 pages.

This is the report of the proceedings of the third international symposium on external control of human extremities. The meeting was held in Dubrovnik, Yugoslavia, August 25–30, 1969. One hundred and three authors present their papers.

The book considers hand and arm prostheses and orthoses, manipulators, legged locomotion studies, functional stimulation, and transducers and actuators.

Rehabilitation Counseling: Scope and Services. Marceline E. Jaques. Houghton Mifflin Co., 53 West 43rd St., New York, N.Y. 10036. 91 pages.

The author is professor and director of the rehabilitation counseling program at the State University of New York at Buffalo.

The following statement is excerpted from the monograph's editors, Shelley C. Stone and Bruce Shertzer, and it epitomizes the book's content:

This monograph presents a descriptive overview of the scope and services of rehabilitation counseling. But beyond mere description, the reader will find that the author has conceptualized meaningfully the major philosophical and operational components and issues involved in rehabilitation counseling. Neither the nature of the recipient of the service nor the nature of his problem is neglected by the author. Further, attention has been given to the rehabilitation counseling practitioner—his history and role models—and how his work is similar to and differs from that of other counseling practitioners.

Communication Problems After A Stroke. Kenny Rehabilitation Institute, 1800 Chicago Ave., Minneapolis, Minn. 55424. 23 pages. 75 cents.

The latest in a growing list of publications and visual aids prepared by the Kenny Rehabilitation Institute, the booklet explains the kinds of speech and language problems that may occur after a stroke and offers practical suggestions for dealing with them.

Subjects discussed in the monograph include: automatic speech, word substitution, writing, spelling, reading, and visual problems. Nonaphasic language changes are also considered. Guidelines for interacting with the patient and suggestions for the family are given.

Disability, Incapacity, and Rehabilitation Referral Under Welfare Reform. National Task Force on Welfare Reform and Rehabilitation Planning, Subcommittee on Determinations of Disability and Incapacity, and Rehabilitation Referral. U.S. Department of Health, Education, and Welfare, SRS, RSA, Washington, D.C. 20201. 48 pages.

This is the first major issuance of the task force subcommittees of the National Task Force on Welfare Reform and Rehabilitation Planning. The report contains the revisions recommended by the National Task Force at its December 1971 meeting. It contains tentative

plans, issues and recommendations for making determinations of disability (Title XX), incapacity (Title XXI) and for making referrals of individuals under the welfare reform programs for possible vocational rehabilitation (VR) services.

They Grow in Silence. Eugene D. Mindel and McCay Vernon. National Association of the Deaf, 905 Bonifant St., Silver Spring, Md. 20910. 118 pages. $6.95.

The book is a philosophical statement aimed at uncovering the origin of the biases which have allowed the hearing person to view the plight of the deaf casually. It contains what the authors believe to be the most recent and best attested psychiatric and psychological information related to deafness.

Topics covered include: The hearing man's bias; the impact of the deaf child on his family; the primary causes of deafness; the testing of hearing and related issues; social, educational, and language development; oralism or total communication; and many subjects falling under these main categories.

Research Utilization in Rehabilitation Facilities: Proceedings of an International Conference. Ralph N. Pacinelli, editor. International Association of Rehabilitation Facilities, 5530 Wisconsin Ave., Suite 955, Washington, D.C. 20015. 345 pages. $2.

This publication was prepared from the papers presented at the International Conference on Research Utilization in Rehabilitation Facilities held June 1–18, 1971 in the United States. The conference participants included selected project directors of Social and Rehabilitation Service supported research and representatives from 23 foreign countries.

The purpose of the conference was to provide a forum for the exchange of information emanating from overseas and domestic research and demonstrations, concerning the vocational rehabilitation of the disabled. Six major topic areas explored were: support personnel, facility development and utilization, community organization, vocational assessment, the homebound, and cost effectiveness in rehabilitation. A list of participants and the conference program form the appendix.

A Guide To Geriatric Rehabilitation. 32 pages. **Exercise For the Elderly.** 11 pages. Herman L. Kamenetz, M.D. Professional Services Department, Armour Pharmaceutical Co., P.O. Box 1022, Chicago, Ill. 60690.

Although both of these are "small" books, they are clear statements of the needs and practicalities of being "older." The first is a statement for physicians, and it covers the evaluation of the older patient, his general care, and precepts of physical therapy. The second, as its title implies, is a family manual presenting a range of exercises for the elderly. It stresses exercise but cautions against overexertion.

Guide To Manpower Training. John Colbert, Ph.D. and Marcia Hohn, M.Ed. Behavioral Publications, 2852 Broadway, Morningside Heights, New York, N.Y. 10025. 112 pages. $8.95.

This is a manual for operating personnel who have training responsibilities. It describes and discusses models for staff organization and staff-trainee relationships—detailing methods and techniques for implementation of models. It also discusses administration of manpower programs, training of manpower personnel and social context in which programs operate.

A team approach is explained in detail including roles and organization of staff and teams. Another section discusses the philosophical concepts underlying manpower programs and the personal qualms and confusion experienced by operating personnel.

Issues in Community Psychology and Preventive Mental Health. Task Force on Community Mental Health, Division 27 of the American Psychological Association, Behavioral Publications, 2852 Broadway, Morningside Heights, New York, N.Y. 10025. 161 pages. $4.95 paperback, $8.95 hardbound.

Original background papers and the Task Force On Community Mental Health's official position statement which emerged from them are presented. The official position statement is contained in the final chapter entitled, "Priorities for Psychologists in Community Mental Health."

Among the papers written especially for this volume are: Strategies of Preventive Intervention, Professional and Sub-professional Training in Community Mental Health, Community Mental Health Programs, Public Issues in Community Psychology, and Evaluation in Community Mental Health.

The Aged and Community Mental Health: A Guide to Program Development. Group for the Advancement of Psychiatry, Inc., Publications Office, 419 Park Ave. South, New York, N.Y. 10016. 96 pages. $2.

This guide is intended to provide practical information that staff in community mental health centers and allied organizations will need to provide high quality services for the aged. While it is designed primarily for those who establish policies in community mental health centers, it is also intended for people who are concerned with planning and implementing the mental health programs of the aged in clinics, hospitals, and administrative agencies.

The application of five models for conceptualizing mental health programs is discussed with regard to mental health in the elderly. Four organization plans for the delivery of mental health services to the aged are discussed.

(Continued on page 40)

nutrition and dietary services in social rehabilitation programs

James E. Trela, Ph. D.

Georgene E. Lancaster

Harriet R. Falkenstein

"I HAVE NEVER BOUGHT SO MUCH FOOD with my money. Please go with me the next time." This is a typical remark of an inner-city resident after a nutrition aide has accompanied her to a neighborhood supermarket. Responding to the complex problems of the inner-city poor, Vocational Guidance and Rehabilitation Services' Cleveland Inner-City Project (CICP) coordinates a broad range of vocational rehabilitation techniques with family casework, social recreation, health and nutrition services. The recent development of a nutrition and dietary component is an attempt to combat conditions leading to poor health and related impairments among inner-city residents. There are also two important byproducts of the nutrition program: (1) needy clients, who would not otherwise be known to the agency, are provided with a mode of entry into more comprehensive rehabilitation programs and (2) indigenous persons are trained as paraprofessionals to provide nutrition services to their community.

The nutrition and dietary program is directed by a professional nutritionist and staffed by two indigenous paraprofessionals and four trainees. The paraprofessionals are members of the VGRS staff and, in addition to having a keen interest in helping others, are familiar with the cultural and environmental milieu of the inner-city. Each is receiving work experience and training in nutrition: one is a nutrition aide, skilled in the fundamental concepts of nutrition, and the other is a dietary aide who is trained in quantity food preparation. They both attend evening classes at a local community college where they are enrolled in a 2-year associate degree dietary technology program.

The trainees are referred to VGRS from varied sources. One BVR client is training to be a dietary aide and another to be a nutrition aide. A 16-year-old mother, referred by the Neighborhood Youth Corp, is training to be a dietary aide while completing her high school education in the evening. Finally, a young man, trained in food production through the Cleveland Board of Education Manpower

Dr. Trela is the research director for the Vocational Guidance and Rehabilitation Services. The dietary and nutrition unit described in this paper is an SRS-supported segment of the Cleveland Inner-City Project. Mrs. Lancaster is the project's nutritionist and Miss Falkenstein is the project's research coordinator.

Training Program, has been assigned to VGRS as a work cite. He is also taking community college courses.

The Program

Program goals require the coordination of a three-pronged approach to *normal* and *therapeutic* nutrition.

Normal Nutritional Program

Two service components devoted to normal nutrition include counseling homemakers about food and dietary practices and a free supplementary food program for children. Normal nutrition counseling stresses education about nutrition and food practices and is designed for clients referred by CICP workers from their more than 300 family cases or brought to the attention of the project by other community sources.

Clients are taught the basic four food groups (the milk group, meat group, vegetable-fruit group, and bread-cereal group), and how the recommended daily servings from each will supply a balanced diet which satisfies bodily requirements for growth and maintenance. Here the indigenous paraprofessional is an essential bridge to clients as she becomes a dynamic extension of the nutritionist's skills. More clients can be reached, community acceptance of rehabilitation programs is heightened, and social distance between the professional and disadvantaged clients is lessened. Since she is readily accepted in the client's home, the paraprofessional can teach a variety of skills which support proper nutrition in poor families. This includes planning low cost meals, food selection, and the best methods of food storage and preparation.

In addition, the paraprofessional's counseling and supportive presence often induces clients to help themselves. The nutrition aide, for example, played a significant role in helping an elderly woman through the crisis period following the death of her spouse. In her depression, she had stopped eating meals regularly, lost interest in her health and appearance, and ceased to care for her home. The aide was able to intervene successfully in this cycle of despair because she possessed the understanding and interpersonal skills necessary to gain the trust and confidence of the client, the technical knowledge required to treat the problem, and a sincere interest in the well-being of the client.

First, the aide took food to the client, prepared it for her, and talked with her. Gradually, she was able to help the client overcome her depression. Once the client showed signs of caring about herself again, the aide focused on her failure to respond to a physician's recommendation that she be hospitalized for extensive heart care. After persistent urging, the client agreed to enter the hospital. This illustrates the importance of normal nutrition counseling; it is a vital point of entry into complex inner-city problems and a vehicle for increasing utilization of services.

The Free Food Program

An ancillary component of the normal nutrition services is a free food program designed to protect children under 21 against irrevocable damages to health caused by poor diets, malnutrition, and lack of home dietary practices. With aid from the U.S. Department of Agriculture's special food service program for children, two meals and a snack are prepared and served daily to about 150 youngsters.

During the summer, children registered with the agency's recreation program (most of whom receive free breakfast and lunch at school during the school year) are served free meals at the recreation center. Six youngsters from the Summer Neighborhood Youth Corps, under the supervision of the trained food aide, prepare and serve meals according to the specifications of the U.S. Food and Nutrition Service. These meals supply protein, vitamins, minerals, and energy to growing, inner-city children who cannot afford to wait until parents are educated about nutrition. The daily menu, for instance, includes milk, orange juice, meat and cheese sandwishes, and a variety of fresh fruit.

A major emphasis in this program is to create awareness among the children of nutritious foods and how they are related to good health. During the school year the food program is continued for 150 educable mentally retarded high school students enrolled in a work orientation program at VGRS.

Astrofood

The supplementary food program experience has underscored the importance of serving foods that are not only nutritious but will be accepted and enjoyed by disadvantaged youngsters. The project served a food snack cake, called Astrofood. It was developed by a commercial baking corporation in cooperation with the U.S. Department of Agriculture.

VGRS trainees and aides prepare food for children participating in agency's free lunch program.

Astrofood, which looks and tastes like a popular commercial snack, provides eating pleasure, vitamins A, B, and C, as well as iron and calcium. When served with eight ounces of milk, Astrofood is nutritionally equivalent to a breakfast consisting of four ounces of orange juice, two slices of bacon, one pat of butter, and one slice of bread. The cake has been successfully accepted by the youngsters in our program.

Therapeutic Nutritional Program

The therapeutic component of the nutrition program involves counseling and planning special diets for clients with complex nutritional problems which are often associated with other disabilities. Obesity is one of the most prevalent problems of the inner-city poor and one which demands much attention because it is frequently associated with diabetes and hypertension. It is not unusual for obese clients to be as much as 100 pounds overweight. This is often due to a failure to understand the relationship between portion size and caloric content. Many clients for example use the calorie count on the calorie chart without regard to the size of the portion they eat and do not count snack food as part of their total daily caloric consumption.

A case history of a typical client will best illustrate the problem of obesity among the inner-city poor. An acutely obese female was referred to the nutritionist from the VGRS business training program. In her diet history, the client reported that she did not eat anything at all during the day. Further inquiry, however, revealed that she was a compulsive eater and consumed more than 5,000 calories per day. What she had meant was that she did not sit at a table regularly to eat her meals. And, as a consequence, she did not consider the foods she snacked as part of her caloric intake. Here nutrition counseling was an essential support to vocational training. Regardless of the skill level achieved by a client, employment opportunities are diminished by poor appearance and employer's awareness of the health risks accompanying excessive obesity.

Pregnancy among teenagers presents a second nutrition problem. The nutritionist has been seeing pregnant teenagers as young as 13 years of age. These adolescents are counseled about their own growth and development as well as that of their unborn child. Careful attention is given to special diets designed to prevent the occurrence of extensive obesity—a very serious and common complication of teenage pregnancy. Here again, the indigenous paraprofessional is a critical bridge between the expertise of the nutritionist and the inner-city client. The paraprofessional personalizes treatment as she interprets, reinforces, and legitimizes the diet ordered by the physician and the regimen introduced by the nutritionist in a manner culturally relevent to the client.

Diabetes and hypertension are among the other major disabilities often found among the inner-city poor. For example, a client who had suffered a stroke and was a diabetic complained of having no energy. The nutritionist found that the client did not understand her diabetic food exchange lists and was afraid to eat any food. Soon after her fear was

allayed, she was feeling better and her performance in occupational threapy also improved.

Finally, nutrition personnel often work in cooperation with the neighborhood Family Medical Care Center sponsored by VGRS and Polyclinic Hospital. The FMCC refers clients to the nutritionist for special diets or counseling and the nutritionist in turn refers clients in need of medical care. For example, one client referred from physical therapy was an obese 51-year-old female leg amputee. She needed to reduce her weight because her obesity caused excessive chaffing of the legs and difficulty in using her prosthesis. While relating her diet history, the client complained about constant thirst which caused the nutrionist to become suspicious of diabetes. Before counseling continued, the client underwent a complete urine and blood analysis. At FMCC high blood pressure and diabetes mellitus were diagnosed.

The client was admitted to Polyclinic Hospital and remained until insulin and diet requirements were established. The nutritionist then was able to continue dietary counseling for diabetes and obesity and help the client control her condition. In this case, as in many others, serious disabilities would fail to receive professional attention were it not for the dynamic nutrition component in our rehabilitation program for the inner-city poor.

In summary, the Nutrition and Dietary Program of the VGRS-Cleveland Inner-City Project serves the inner-city poor by: (1) improving the nutritional well-being of clients and their families; (2) improving social functioning, especially as it is associated with homemaking and personal adjustment; (3) providing a mode of entry into a rehabilitation program for disadvantaged individuals and thereby increasing utilization of a wide variety of social services; and (4) providing training and career opportunities for capable indigenous nonprofessionals in a rapidly expanding health field. The preliminary success of the nutrition and dietary program is a testimony to the potential fruitfulness of nutrition programs as one part of larger rehabilitation programs aimed at helping the hard-core poor.

A Case In Point

The following thumb-nail sketch was sent to us by Mrs. Jane Yau, Ed.M., Massachusetts Rehabilitation Commission.

The *Rehabilitation Record* will print, from time to time, innovative, different, or unusual placements that underline the possible in cases that seem impossible.

Forty years in a mental institution. A 4th grade education. No skills. Sixty-four years of age. With these assets, what could be foreseen for Mr. M.? Nothing much, really, except more of the same. But because Mr. M.'s schizophrenia had "burned out" through the years of institutionalization, the hospital staff wanted to move him to a nursing home.

That was a fortunate turn of events. A volunteer case aide was assigned to him—to motivate him toward the move to the nursing home. In the process the case aide realized that Mr. M. had potential. His response to her attention was also noted by the ward social worker who contacted me at the Massachusetts Rehabilitation Commission.

I worked with Mr. M. He was sent to the Goodwill Industries for work evaluation. Grooming, socialization, handling of money, and other activities of daily living were imparted. Goodwill was ready to accept him in their maintenance department but he still would need a foster home. As luck would have it, I heard of an opening in the kitchen of a seminary where room and board were provided. I got him the job, and he has been there for 2 years.

Instead of the $1 allowance he received at the institution, he now makes $50 a week and room and board. Mr. M. is happy. We know that because he drops by the office every now and then to tell us. I suppose that, if anything, Mr. M.'s case proves that life can begin at 65.

STUDIES OF SPINAL ORTHOSES AND BELOW-KNEE PROSTHESES. (RD 3348) New York University Medical Center, 560 First Ave., New York, N.Y. 10016. 26 pages.

PSYCHOLINGUISTIC AND BEHAVIORAL VARIABLES UNDERLYING RECOVERY FROM APHASIA. (RD 55119) University of Pittsburgh, 4200 Fifth Ave., Pittsburgh, Pa. 15213. 127 pages.

REHABILITATION APPLIED TO DERMATOLOGY. (RD 55105) University of Maryland, School of Medicine, Baltimore, Md. 21201. 58 pages.

A PSYCHOLOGICAL TEST BATTERY FOR PREDICTING SUCESS IN PROSTHETIC REHABILITATION. (RD 402) New York University Medical Center, 560 First Ave., New York, N.Y 10016. 215 pages.

THE RELATIONSHIP OF EARLY PERCEPTUAL LEVEL FUNCTIONING TO LATER SCHOOL ACHIEVEMENTS IN BLACK DISADVANTAGED CHILDREN. (RD 55173) University of Chicago, 5801 South Ellis Avenue, Chicago, Ill. 60637. 45 pages.

ESTABLISHING AN OPTICAL AIDS CLINIC. (RD 1846) Oregon Commission for the Blind, 535 S.E. 12th Avenue, Portland, Oreg. 97214. 20 pages.

EDUCATING STROKE PATIENT FAMILIES—Vols. I, II & III (RD 55211) Research Department, Curative Workshop of Milwaukee, 750 North 18th Street, Milwaukee, Wis. 53233.

SYMBOLIC AND LINGUISTIC PROCESSES IN THE DEAF. (RD 55320) Vanderbilt University, Nashville, Tenn. 37203. 182 pages.

ILLINOIS STUDIES OF THE ECONOMICALLY DISADVANTAGED—A CONTENT ANALYTIC STUDY OF INTERRACIAL CONFLICT-PRODUCING SITUATIONS AND ROLES. (RD 55175) University of Illinois at Urbana-Champaign, Department of Psychology, Champaign, Ill. 61820. 82 pages.

REHABILITATION OF CANCER PATIENTS—TREATMENT FOR DISABILITIES RESULTING FROM THE EFFECTS OF CANCER OR ITS TREATMENT. (RD 2311) Memorial Hospital for Cancer and Allied Diseases, 444 East 68th Street, New York, N.Y. 10021. 154 pages.

THE CORRELATION OF ALTERED SYMPTOMS AND FUNCTIONAL REHABILITATION IN PARKINSON'S DISEASE. (RD 1862) Duke University Medical Center, Durham, N.C. 27706. 41 pages.

STUDENT AIDES FOR HANDICAPPED COLLEGE STUDENTS. (RD 55156) St. Andrews Presbyterian College, Laurinburg, N.C. 28352. 158 pages.

JAIL INMATES AT WORK. (RD 55261) San Jose State College Foundation, San Jose, Calif. 95114. 97 pages.

A DEMONSTRATION OF A LOW VISION CLINIC. (RD 1787) Edward J. Meyer Memorial Hospital, 462 Grider St., Buffalo, N.Y. 14215. 11 pages.

OBJECTIVE INDICES OF SEVERITY OF CHRONIC APHASIA IN STROKE PATIENTS. (RD 55198) Regents of the University of Michigan, Ann Arbor, Mich. 48108. 40 pages.

FUNCTIONAL LONG LEG BRACE RESEARCH. (RD 55268) University of California, Los Angeles, 405 Hilgard Ave., Los Angeles, Calif. 90024. 61 pages.

NOME REHABILITATION DEMONSTRATION PROJECT (ALASKA). (RD 823) Maynard McDougall Memorial Hospital, Nome, Alaska 99762. 55 pages.

MOTOR ACTIVITY PROGRAMS DESIGNED FOR TEACHING SUPPORTIVE PERSONNEL IN PHYSICAL THERAPY. (RD 55272) Rancho Los Amigos Hospital, Inc., 12826 Hawthorn Street, Downey, Calif. 90242. 56 pages.

MODELING: AN APPROACH TO THE REHABILITATION OF JUVENILE OFFENDERS. (RD 55303) University of Washington, Department of Psychology, Seattle, Wash. 98103. 159 pages.

THE ORGANIZATION, MANAGEMENT, AND TACTICS OF SOCIAL RESEARCH. (RD 2875) Vocational Guidance and Rehabilitation Services, 2239 East 55th St., Cleveland, Ohio 44103. 312 pages.

STUDIES IN COGNITION AND REHABILITATION IN HEMIPLEGIA. (RD 55042) New York University Medical Center, Institute of Rehabilitation Medicine, 400 East 34th St., New York, N.Y. 10016. 205 pages.

COMPREHENSIVE TREATMENT PROGRAM FOR INDIAN PROBLEM DRINKERS. (RD 55241) Office of the Governor, Iowa Comprehensive Alcoholism Project, 1209 East Court Ave., Suite 406, Des Moines, Iowa 50319. 85 pages.

THE ROLE OF LABOR, MANAGEMENT, A UNIVERSITY, AND A PUBLIC VOCATIONAL REHABILITATION AGENCY IN SERVING DISABLED, DISADVANTAGED WORKERS. (RD 55020) New Jersey Rehabilitation Commission, Labor and Industry Building, Trenton, N.J. 08625. 181 pages.

A STUDY OF WORKMEN'S COMPENSATION IN RELATION TO SHELTERED WORKSHOPS. (RD 55054) Human Resources Center, Albertson, N.Y. 11507. 58 pages.

REHABILITATING THE TUBERCULOUS ALCOHOLIC—AN EVALUATIVE STUDY. (RD 2138) Harvard Medical School, 25 Shattuck Street, Boston, Mass. 02115. 295 pages.

Consumer Involvement In Rehabilitation

Harold S. Remmes

In the last few years a new force has emerged on the rehabilitation scene, and the impact is already being felt. I refer to consumer organizations which have evolved from scattered little groups of recreation and socially oriented handicapped persons. In New York, for example, there is a relatively new group of mostly young people who call themselves DIA, Disabled In Action. This is a rather militant group who want to change the system in quite a different way than, for example, those who work with me in the Massachusetts Council of Organizations for the Handicapped (MCOH).

MCOH has brought together under one umbrella more than 15 groups of handicapped persons, representing every disabling condition from paraplegia to ostomists, from cerebral palsy to cardiacs, from hemophelia to muscular dystrophy. In addition, we have formed a coalition with the blind, deaf, and elderly so that we now can claim a body politic of more than a million persons in the Commonwealth of Massachusetts.

Yet, there have been no demonstrations, no disruption of the system, no name calling, and no rock throwing (this might be attributed to the fact that few of our people have the strength to throw rocks). We have had reasonably good success in Massachusetts because we have developed responsible leadership—the best possible leadership from each member group.

Our approach has been to try to serve as an adjunct to existing structures by serving on their boards, serving as consultants, conducting surveys, promoting legislation. We serve in these ways and in many other ways. Also, we have given cohesion to the scattered groups by supporting their programs, informing them of current events, and serving as a forum for discussion of common problems.

Involvement and Road Blocks

We were appraised of a need for data to support the housing needs of the handicapped. To gain this information we conducted a survey of our members which was quite sophisticated, and we produced the only meaningful data available in this area. The data are widely used and are in their second printing.*

Since we consider housing for the handicapped a top priority, we were anxious to produce our study. It was predicated on the belief that successful rehabilitation is dependent on proper housing for, without it, the client has little chance of attaining the degree of mobility required for acquiring skills or obtaining gainful employment.

Yet, in spite of these perceived needs, it seems that impediments can arise from many sources. For instance, Housing and Urban Development asked us to do a market study to determine the number

Mr. Remmes is President, Massachusetts Council of Organizations of the Handicapped, Inc. The paper is based on remarks that he made at a Research and Training Center conference held in Philadelphia, February 2, 1972.

* We accomplished the entire survey from design of the questionnaire to programing for computer and report distribution for only $4,000.

"He's only experienced disability, I've studied it!"

of disabled who would relocate if suitable housing were provided. Could anyone respond to a questionnaire asking whether one would relocate when one had no idea of where the facility would be located, what other features would be in proximity to it, what the rental scale would be, or a million other questions which determines where one would choose to live? Nobody asks the automobile driver if he would use a superhighway if it were available, and I seriously doubt if any agency would say that it could not fund a road until the motorists themselves demonstrated the need.

I guess what I am really trying to say is that there are two major factors emerging on the consumer scene: (1) The consumers are, in fact, becoming a force, and (2) the leadership which is developing must be channeled into a positive rather than a negative force.

Road blocks can only make the reasonable leadership lose the confidence of its constituency. Should this happen, those who would prefer to tear down the system would assume the leadership role. The problem is that the latter group will not offer viable solutions to replace what they would destroy. The losers will be those who now hold the means to effect better service and, in the long run, the very consumers whom we are pledged to serve.

The Meaning of Consumer Involvement

How does all of this affect the rehabilitation program? The program can spend millions of dollars to develop a more functional prosthesis, or to train paraprofessionals, or on a multitude of other projects. It is structured to avoid duplication of projects; it can call upon the research of some of the top men and women in the field; it has access to funds which have, I am sure, produced great value for each dollar spent. But, does it really know what the client it serves considers the priorities? Do the professionals speculate on how effective some proposal will be in the lifestyle of the impaired—based on what *they think* MUST BE VITAL TO HIS NEEDS—or do they ask the clients *before* they make their commitment?

I propose that responsible consumer input is a tool which is as important as the scalpel, necessary as the blueprint, and a far more efficient machine than the EKG. I suggest that involvement of responsible consumers can save money. I submit that any rehabilitation program will operate with a far better perspective as to priorities, program development, meaningful research when it involves the person with the experience and expertise of those who have lived with the problem of disability.

Limitations, Considerations, Examples

Quite frankly, the consumers don't have all the answers. Their involvement will not create a panacea in the rehabilitation field. In this consideration, there is some danger in haphazard involvement. For example, if one were trying to develop a better prosthetic hand, would one ask the person for whom it was being designed what he wanted? This might help, but we would be more inclined to ask those who were already using the most advanced prostheses what problems they were encountering. That is the value of a consumer constituency. It has the ability to quickly gather information. It has a broad field of disability from which to draw.

The project which Research and Training Center 7 at Tufts University is working out with my group in the area of public housing has many spinoffs in addition to achievement of the program's primary objectives. Consumers and professionals have been working out the details. Both groups have made excellent contributions, and we are convinced that it will be a better project because of this collaboration. Aside from that, however, the consumers themselves are looking at what is being done. They are gaining confidence in the center and in so doing are adding to its prestige in the field.

The involvement of the consumer for the first time by the National Rehabilitation Association is also being closely watched, and, while we are assisting with this new effort, we are observing it closely to assure that it will be a meaningful marriage and

not just the tokenism which has occurred in so many other areas of consumer involvement.

We as consumers can help you if we are allowed to. We are anxious to assist at all levels, not as window dressing, not because we get our kicks from rubbing elbows with the establishment, but because we feel that we, in our field of advocacy, are every bit as professional as any person in the field. We, too, have our Ph.D.'s; we, too, have our businessmen, our doctors, our programers, our technicians. But, more important, we have the expertise of having lived with the problem of a handicap.

The rationalizations, sublimations, and substitutions in our lives cannot be found in any standard text on the handicapped. But, we know which ones apply. We can spot a rationalization which might appear to others to be perfectly valid because we have experienced the fear that facing a great flight of stairs brings to one with a mobility problem. We know these fears and anxieties because we live with them. While we may personally have overcome them in order to function, we know of their existence, for we still experience these feelings. Those are our credentials.

We offer the use of our expertise, but only at the professional level. We are no longer just the brains to be picked when it is convenient. We offer the opportunity to include us as a part of the system.

The opportunity is at hand to utilize us at all levels of operation. This is a critical period in the evolution of consumer leadership. Its future responsibility or irresponsibility could very well depend on the decisions of those who control the rehabilitation process today. This should be considered in the design of each new project. The consideration of consumer involvement should be made at the group leadership level rather than by some haphazard manner of choosing an individual consumer.

Starting with the conceptualization process, the consumer can be of valuable assistance by: (1) assisting with the establishment of priorities; (2) anticipating any possible resistance to a project at the "grassroots" level; (3) providing information to his constituency; and (4) giving technical assistance from his group.

Handicapped people deserve the opportunity to share in any decision-making process affecting their lives. They must play a role in the area of self-determination. We have worked for years to gain the expertise to work *with* the system. We are waiting to work with it. We want the same professional acceptance and consultation considerations made by any outside expert who is brought into the system. We feel that we have now earned this position of trust and expertise. We ask this so that the rehabilitation process may be speeded by our collaborative efforts and so that the confidence in responsible leadership of this embryonic, but dynamic force—the organized consumer—may be retained and flourish.

Burning For Books

Attica Asks For Help

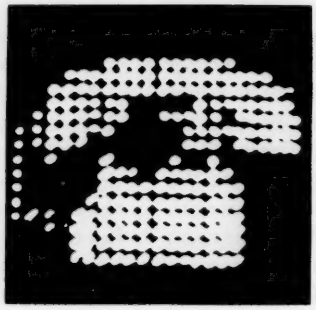
Last September's rebellion at Attica Prison in New York State did more than cost 43 lives. The violence and bloodshed caused by a small minority of prisoners deprived the majority of the opportunity to occupy their minds in recreational, educational, and self-improvement pursuits. The prison library was burned and destroyed.

An appeal is being made for all kinds of reading materials—books, journals, bulletins. Individuals and organizations wishing to help should send material to: School Library-Educational Department, Attention: Mr. Dickerson, Box 149, Attica, New York 14011.

The prisoners have a strong interest in wildlife, forestry, agriculture, fisheries and other subjects related to natural resources and environmental management. They are also interested in the entire spectrum of human knowledge, especially the professions and academic areas such as English, foreign languages, social and physical sciences, and mathematics.

Another subject for which literature is badly needed concerns religion, the appeal from Attica said. "Bibles and writing on religious history and philosophy are especially in demand," the appeal stated.

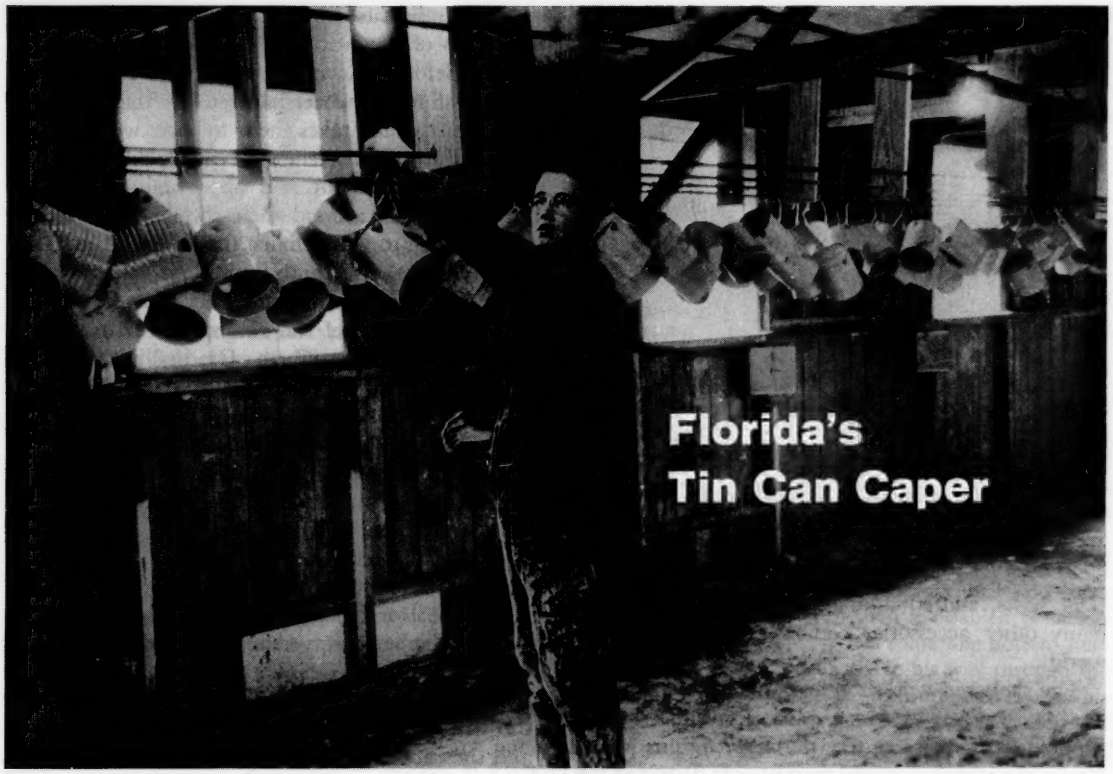
WELL SAID; WORTH SAYING: No rehabilitation facility, no rehabilitation facilities specialist, State Director or Associate Regional Commissioner should stop considering new plans for growth. There should be an architect, an administrator, and a program developer drawing up plans for an addition to the new building dedicated that day! (William M. Usdane, Ph.D. in a paper, "Rehabilitation Facilities Are Here To Stay") . . . . Some researchers seem to fear the possible contamination of their pure research that might be caused by an association with practitioners in the field . . . . On the other side of the coin, it probably is true that many practitioners . . . have been overly pragmatic in their approach, have been resistant to change, defensive and protective of old methods of doing things, and have tended to write off all researchers as ivory-towered theoreticians who don't know what it is like in the real world where the work is done. (Craig Mills in a paper, "Research and Training Centers Relationship To State Vocational Rehabilitation Delivery Systems," presented at a national conference of R&T Centers, February 8-11, 1972.)



Above is a pictorial facsimile of a telephone as it would be "seen" by a blind person using a device under study that is called "The Tactile Vision Substitute System." The image is captured by a TV camera carried by the blind person. The image is transmitted to a grid positioned over the skin of the abdomen and the "touch" impression is thus transmitted to the person's brain. The research project is partially funded through SRS.

REHABILITATION AIDES are being trained at the Institute of Rehabilitation Medicine, New York University Medical Center, with an eye toward increasing the abilities of paramedical personnel and expanding the team approach to rehabilitation medicine. The aides are trained to assist in areas of nursing, physical therapy, and occupational therapy. In their 160 hours of classroom and on-the-job instruction, they cover such subjects as anatomy and physiology, survey of pathological conditions, nursing and therapeutic procedures, and the use of special equipment.

THE LOGOTYPE shown above is the new symbol for the Rehabilitation Institute of Chicago. It will appear on all its stationery, business cards, and publications. Its creators call the symbol a tree with eight branches, representing the disciplines of comprehensive rehabilitation: nursing, physical therapy, occupational therapy, social work, psychology, speech therapy, vocational counseling, and therapeutic recreation. According to the designer, Morton Goldsholl: ''The tree of life is symbolic of strength, growth, and survival. From early days man used the tree to signify his belief in the continuance of life ''



Florida's Tin Can Caper

Clyde L. Reece

A corps of 120 mentally retarded boys and young men at the Sunland Training Center in Marianna, Florida, doesn't know the meaning of pollution and ecology, but when it comes to recycling scrap materials they are experts. So expert, in fact, that during a 6-month period they salvaged, painted, and sold more than 60,000 one-gallon tin cans at a profit of more than $3,600. At the close of 12 months they expect to reap $7,200. If they were servicemen, one would have to typify them as having a "can do" attitude!

On top of that, they accomplished this miracle of production with other discards, including two old-fashioned, four-legged bathtubs used for scrubbing and painting the cans; one hand-operated puncher to make drainage holes; wire brushes; and overhead drying hooks made of scrap coat hangers.

Mr. Reece is an information specialist for Administrative Services, Department of Health and Rehabilitative Services, Florida.

They even made their own 26-foot trailer which is pulled by a secondhand bus and regularly delivers their refurbished containers to an eager string of nursery operators who need the receptacles to pot young plants and shrubs.

The clients, all severely retarded but physically able to work a few hours a day for pay, are members of a carefully supervised sheltered workshop operation at Sunland-Marianna, one of six such training centers and hospitals operated throughout Florida by the Division of Retardation, a unit of the Department of Health and Rehabilitative Services.

The profits from their tin can operation are carefully audited into a resident welfare fund which provides extra personal gifts and entertainment for other residents unable to respond to work training methods.

Nor have the boys and their workshop supervisors overlooked the Lib movement—they work alongside retarded girls who, during 7 months, have made and sold 2,500 potholders. They also make stuffed pillows, change purses, pincushions, ribbon wrap-

Two clients (mentioned in article) could not leave their wheelchairs. Now willingly take part in program.

ping bows, stuffed animals, ceramic objects, and many other accessories common to the woman's world.

The sheltered workshop at Sunland-Marianna is one phase of an extensive education and training program spread across the 535-acre campus where total, year-round care and training are provided for more than 900 children and adults, many of whom, in addition to being mentally retarded, are physically and emotionally handicapped.

"The sheltered program is primarily for the severely retarded," says Charles H. Cox, the institution director. "A majority of these residents will never be able to leave the Center. They need positive guidance because some are also blind, crippled, or in need of constant medical surveillance."

Supervising the workshop is Ken Stoutamire, a Mariannaean with a degree in marketing. He also has training as a horticulturist and florist. Of his charges, Ken has this to say: "But whatever their handicaps may be, they are human, and they need to be needed. And they need to learn that what they are doing is worthwhile. They tell us this is true with eagerness and smiles.

"The workshop also provides therapy and understanding of each other, and it keeps them from sitting around and deteriorating doing nothing.

"They can bank or spend their earned money as they choose, and the profits from the operation help other residents to enjoy parties, ice cream festivals, extra gifts and belongings, and accessories for their living quarters."

Two residents already have become walking examples of the workshop's aims and accomplishments. Before the can-painting project began they were confined to wheelchairs; today they can walk to the bus which takes them to their work station.

Sunland officials felt the two would respond if given encouragement and opportunity instead of letting them sit around their cottages. Like others not confined to wheelchairs, they were taken to the sheltered workshop and from their chairs started to scrape and clean the cans. They were encouraged to stand in front of the chairs, with bars to help support and protect them. Gradually, they stood alone.

While both are incapable of walking speed or hard exercise, they are navigating. Like the rest of the clients, they relax practically at will, and work only an outside maximum of 3 hours daily to prevent overexertion and boredom.

The officials say that "incentive" was actually what got them out of wheelchairs.

The idea for Operation Tin Can was born when a staff member observed a heap of discarded food containers at the Center's cafeteria. He reasoned that it was a shame that the metal would be "just thrown away." After the salvage job was conceived and the cateferia was "despoiled" of its containers, other "feeding centers" were located to supply the steady stream of receptacles needed for the new enterprise.

The workshop has also developed other money-making projects. Other boys make barrel chairs; refinish furniture; and bundle old newspapers which florists use to wrap moist plants. The newspaper is sold both in flat and rolled bundles. They have earned more than $330 for 10 tons of paper that they have delivered in an 8-month period.

Another project is shoe shining. Twice weekly a truck collects the residents' shoes from the Center's scattered cottages. After a vigorous polish, the shoes are returned to their owners. Nobody pays for this chore but everybody looks spic and span. They charge it up to instruction in personal grooming, also part of their daily training.

Already the Sunland-Marianna residents have a small garden. But on the drafting board, awaiting the day when financial help arrives, is a large horticulture area with irrigation systems and greenhouses which will produce flowers and shrubs for the Center's vast lawns and vegetables for the residents' tables. On that day, they will have tin containers nearby in the sheltered workshop across the road.

. . . On Volunteers

I wanted, too, to congratulate you as I have already done to Diane Roupe on the perfectly magnificent article you had on volunteers ("Volunteerism: Reawakening To An Age-Old Truth," March–April 1972). I think she has stated the philosophy of volunteerism in rehabilitation better than anybody has ever stated it before, and I congratulate you on being the one to publish it. We are going to hear a lot more about volunteers in the future.

Henry Redkey
Professor of Rehabilitation

How great it was of you to feature Diane's [Roupe] manuscript as the lead article in the March and April issue . . . . You have been so very cooperative and positive about the project and the subject of volunteering. . . .

Stanley Levin, Director
Volunteers In Rehabilitation

. . . Rehabilitation In England

We refer to your issue of November–December 1971 under the name of Mrs. Dorothy G. Jackson. In particular we are somewhat concerned that the impression should arise that our disabled citizens have a raw deal in this country. This is not so.

An account is given of a rally which your writer describes as "to protest England's unfair treatment of its disabled citizens," and then goes on to say that "their cause . . . until now had received little recognition." This is quite untrue. Allowing for the liberties of a certain type of journalese, the impression remains of a society hitherto indifferent to its disadvantaged citizens.

The marches referred to were initiated some years ago by the Disablement Income Group under the leadership of the late Mrs. Megan DuBoisson and continued under the leadership of the doughty Mary Greaves, with the aim of securing adequate financial provision from the state for those disabled persons unable to obtain financial support from any other source, or who needed supplementary assistance. This has been achieved to some extent.

The 1970 Act brought about by a private member's bill in the House of Commons (Mr. Alfred Morris, M.P.) in much of what it does simply makes mandatory what many enlightened local authorities have done for years under their permissive powers. If it has a weakness at all, it lies in the fact that it has no real end product—offering welcome palliatives—but doing little in the way of restoration, or rehabilitation. Nevertheless, it was welcome.

However, the United Kingdom has a considerable amount of legislation enacted by successive governments over many years which makes this country one of the most advanced if not the most advanced country in the world in its provision for the disabled. That legislation was not necessarily achieved by protest marches or publicity seekers who will jump on to any bandwagon that suits them, but by the patient plodding, well thought out endeavours of people who were motivated by the desire to produce in a sophisticated economy a well-balanced approach to the *needs*—as distinct from the *wants*—of disabled people.

Much of this legislation was the subject of a paper given by the writer at the Annual Meeting of the President's Committee on Employment of the Handicapped in Washington in 1970. It included such matters as the various National Health Service Acts, the Disabled Persons Employment Acts (1944–1958), the National Insurance (Industrial Injuries) Acts (1946–1965), the Ministry of Social Security Act (1966), the National Insurance Acts (1946–1967), the Education Act (1944), the National Assistance Act (1948), the Mental Health Act (1959) and the multitudinous facilities and services available to the disabled as a result of these enactments.

Now this is not to say we have reached a Utopian state of affairs in this country. There are areas in which we are constantly seeking to make improvements. There are gaps to be filled, but it is fairly safe to say that provided a disabled person is able, or has some one able to help him, to weave his way through the labyrinth of provisions made in this country, there is little he cannot get, to at least make life tolerable and, in many cases, economically viable.

There may lie the rub! Good communication can be the secret of success and not everyone is sufficiently aware of what is available. The writer has the opportunity of considerable travel throughout the world and of studying what is done elsewhere. One always returns home thankful that so much is done here by enlightentened government and the multitude of voluntary organizations dedicated to the needs of disabled persons.

Perhaps this is why so many people come to this country to "Read, mark and learn."

Ian R. Henderson
Secretary General
British Council for
Rehabilitation of the Disabled

The section of the article alluded to in the foregoing letter was based on a personal interview with Mr. Duncan Guthrie of London,

England, Director of both the Central Council for the Disabled and the National Fund for Research into Crippling Diseases. The interview took place while Mr. Guthrie was serving as a delegate to the International Conference on Research Utilization in Rehabilitation Facilities, held in the United States in June 1971. His official remarks to the Conference are contained on page 101 of the Proceedings, published by the International Association of Rehabilitation Facilities in December 1971.

Mr. Guthrie reviewed and approved the article before it was printed. Certainly neither he nor I had any intention of implying that there was no help for handicapped persons in England before the march, and I deeply regret any such interpretation.

Dorothy Jackson

. . . Project Reports

. . . I would like to express my appreciation for the regular section in the *Rehabilitation Record* entitled "Project Reports." This is most useful for those in the field to be informed of the availability of such reports as soon as they are available.

Bob Settles, Coordinator
Work Study Programs
The University of Georgia

. . . On The Blind

Herman Allwein's article in the latest *Rehabilitation Record* (March–April 1972) is a delightful one.

Margaret K. Bisbee, Editor
The Rehabilitation Teacher

. . . On Miss Lillian Wald

In the March–April 1972 issue of *Rehabilitation Record,* in the Across The Desk page, reference is made to Miss Lillian Wald's election to the New York University Hall of Fame. You characterize her contribution as that of a nurse.

I think that it would be fair to this gallant lady and her contributions to indicate that she started her career as a nurse but her involvement in the life of the community she served and the people she loved was more that of a social worker. Her activities, her recognition, her frame of reference was that of a social reformer and a social welfare leader.

Hence I think it would be more appropriate to say that she was a nurse whose interests took her into the broader field of social welfare and social work.

Meyer Schreiber
Associate Professor
School of Social Service
Fordham University

New Publications

(Continued from page 27)

Psychiatric Disorder and the Urban Environment. Berton H. Kaplan, Ph.D., editor, in collaboration with Alexander H. Leighton, M.D., Jane M. Murphy, Ph.D., and Nicholas Freydberg, Ph.D. Behavioral Publications, 2852 Broadway, Morningside Heights, New York, N.Y. 10025. 310 pages. $12.95.

The editor, with the assistance of several outstanding contributors, presents answers to the question of what strategy alternatives are available for studying the urban environment's influence on mental health and mental illness. These are given in the form of a series of seminars which were held at Cornell University.

It is also a case study of how distinguished scholars in the area of psychiatric epidemiology have gone about trying to ask fresh questions about social processes and mental illness.

Alexander H. Leighton's theory of integration-disintegration is thoroughly reviewed and optional models proposed for studying psychiatric disorder in the urban community.

Expanded Mental Health Care for the Deaf: Rehabilitation and Prevention. John D. Rainer, M.D. and Kenneth Z. Altshuler, M.D. Office of Deafness and Communicative Disorders, RSA, Department of Health, Education, and Welfare, Room 3413, South Bldg., Washington, D.C. 20201. 71 pages.

A 3-year research and demonstration project which demonstrated the feasibility of adding preventive and rehabilitative services to a mental health program for the deaf to increase the effectiveness of the entire program is described. Techniques found to be successful include: rehabilitation services for inpatients and clinic patients, involvement of the family, halfway house facilities, and group counseling for students, parents and teachers at a school for the deaf.

1971 Re-Survey of Programs and Services of State Rehabilitation Agencies for Clients with Chronic Kidney Disease. Joseph G. Colmen, Ph.D., and Virgil Smirnow. Virgil Smirnow Associates, Suite 414, Associations Building, 1145 19th St., N.W., Washington, D.C. 20036. 38 pages. $1.50.

This document deals with a subject of dramatic public interest at this time (patients being kept alive by means of the artificial kidney machine), and how the State rehabilitation agencies are and are not helping them.

Questionnaires were mailed to 54 States and other jurisdictions. The replies represent the foundation for this report and the 11 recommendations given.

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REHABILITATION RECORD

The weakest ink is better than the strongest memory

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